



DEPARTMENT OF THE ARMY

MOBILE DISTRICT, CORPS OF ENGINEERS
P.O. BOX 2288
MOBILE, ALABAMA 36628-0001

REPLY TO
ATTENTION OF:

CESAM-OP-S
PUBLIC NOTICE NO. AL01-02628-F

3 October 2001

JOINT PUBLIC NOTICE
U.S. ARMY CORPS OF ENGINEERS
AND
STATE OF ALABAMA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

CONSTRUCTION OF A NORTH-SOUTH PIPELINE WEST OF BIG CREEK LAKE, NEAR
MOBILE, MOBILE COUNTY, ALABAMA

TO WHOM IT MAY CONCERN:

This District has received an application for a Department of the Army permit pursuant to Section 404 of the Clean Water Act (33 USC 1344). Please communicate this information to interested parties.

APPLICANT: Florida Gas Transmission Company
Attention: Mr. Rockford G. Meyer, President
1400 Smith Street, EB 3963
Houston, Texas 77002

WATERWAY: Wetlands adjacent to Puppy Creek, Jackson Branch, Boggy Branch, Big Creek and Big Creek Lake, near Mobile, Mobile County, Alabama

WORK: The applicant is proposing the construction of 29.1 miles of 30-inch natural gas pipeline as part of their Phase V Expansion Project. This north-south connector (Mobile Bay Lateral) will begin at a new interconnect with the Florida Gas Transmission Company (FGT) mainline system in Mobile County extending south and west of Big Creek and Big Creek Lake to a new compressor station located south of Airport Boulevard. This tie in will be located approximately 500 feet west of the intersection of FGT's mainline right-of-way (ROW) and the pipeline ROW occupied by Transco's Mobile Bay pipeline at the existing meter station. The north-south connector will proceed east paralleling the existing FGT ROW until intersecting the Transco easement and will turn south at that point. FGT's north-south connector will be installed parallel to and west of the Transco pipeline in new ROW acquired by FGT. FGT's north-south connector will then proceed southward for 27.8 miles where the proposed pipeline will cross existing 12-inch and 30-inch pipelines. South of this crossing the pipeline will continue southward paralleling a 30-inch Koch Gateway (Koch) pipeline which occupies an easement adjacent to the Transco line. The pipeline route continues adjacent to the Koch easement to the location of a

3 October 2001

proposed compressor station at Mile Post 28.8. The pipeline will again continue southward following the Koch pipeline corridor to interconnect at a new measurement station at the Koch Mobile Bay Lateral.

In general, the FGT north-south connector will utilize a 100-foot-wide ROW. This includes a 30-foot permanent easement and 70-foot-wide temporary work space. Additionally, 20 feet of the temporary work space will be located within FGT's existing ROW.

FGT is proposing the construction of a single 3,335 horse power, high-speed, reciprocating compressor and associated appurtenances as Compressor Station 44 at station 44 south of Airport Boulevard, west of Mobile. Compressor Station 44 will occupy 4.5 acres of a 6-acre site.

The north-south connector ROW crosses primarily forested and open areas. The proposed work will impact 352.6 acres of which 35.3 acres are wetlands. Of these wetlands 17.9 acres are forested wetlands. 11.5 acres of these forested wetlands will be temporarily impacted by pipeline construction and will be allowed to revegetate back to their original condition within the temporary ROW. However, 6.3 acres of the forested wetlands will be maintained as herbaceous/shrub wetland within 15 feet of the installed pipeline. As mitigation for the replacement of forested wetland with herbaceous/shrub wetland FGT is proposing the enhancement (4:1 ratio) of 25.3 acres at their Dead Lake mitigation site.

A total of 17.3 acres of non-forested wetlands will be impacted by the proposed construction. Of this total, 9.8 acres occur within the temporary ROW and 7.4 acres within the permanent ROW. These herbaceous and shrubby wetlands are expected to return to their previous condition following construction. Approximately 0.02 acre of open water will be crossed by the proposed construction.

The permit, if issued, will be subject to but not limited to the following special conditions:

- a. The permittee will maintain water quality certification by the State of Alabama.
- b. The permittee will comply with the Alabama Oil and Gas Board safeguards, regulations and restrictions.

3 October 2001

c. All spoil material placed in wetlands will be used as backfill in the pipeline trench in order to reestablish pre-project elevations and contours. All organic soils will be stockpiled and maintained for use in wetlands restoration. Excess material will be placed in an approved upland location. Construction equipment used in wetlands will work from mats.

d. That portion of the proposed pipeline crossing wetlands will be inspected periodically for three years after the right of way has been returned to its original contour and elevation to determine the status of natural revegetation of impacted wetlands. Should a determination be made by the Mobile District that natural revegetation has not been successfully accomplished the permittee will provide, for approval to the Mobile District, a detailed wetland restoration plan that includes replacement ratios, the species and density of plants to be utilized, success criteria, monitoring and remedial measures in case of restoration failure.

e. Temporary erosion control measures shall be installed in the wetland portion of the on-shore pipeline construction sites and must be maintained until such time as the disturbed wetland is revegetated with native wetland species either through natural processes or artificial planting. All upland areas will be stabilized and planted with vegetation to control erosion.

f. The permittee will utilize, as required, an impermeable barrier or slurry wall to insure that their proposed construction does not act as a drain and change subsurface hydrology in any of the wetlands crossed. This barrier would be located where the pipeline enters and exits the wetlands.

g. In the event that cultural resources or artifacts are encountered during pipeline construction, work shall cease and the Alabama Historical Commission and the Mobile District shall be notified immediately.

h. No discharge of cuttings, drilling mud or any other waste materials shall occur unless authorized by a National Pollution Discharge Elimination System permit pursuant to Section 402 of the Clean Water Act.

All work will be in accordance with the attached plans provided by the applicant. The applicant's supplemental information and the Federal Energy Regulatory Commission's Final Environmental Impact Statement is available for review at the Mobile District.

3 October 2001

The applicant has applied for certification from the State of Alabama in accordance with Section 401(a)(1) of the Clean Water Act, and upon completion of the required advertising, a determination relative to certification will be made.

The applicant has certified that the proposed activity complies with and will be conducted in a manner that is consistent with the State Coastal Zone Management Program. Upon completion of the required advertising, a determination relative to consistency will be made by the Alabama Department of Environmental Management.

This public notice is being distributed to all known interested persons in order to assist in developing facts on which a decision by the U.S. Army Corps of Engineers (Corps) can be based. For accuracy and completeness of the record, all data in support of or in opposition to the proposed work should be submitted in writing setting forth sufficient detail to furnish a clear understanding of the reasons for support or opposition. The decision whether to issue a permit will be based on an evaluation of the probable impact, including cumulative impacts, of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered, including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food production, and in general, the needs and welfare of the people.

The Corps is soliciting comments from the public; Federal, State, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

3 October 2001

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state with particularity, the reasons for holding a public hearing.

Evaluation of the probable impacts involving deposits of dredged or fill material into waters of the United States will include the application of guidelines established by the Administrator of the U.S. Environmental Protection Agency.

The National Register of Historic Places has been consulted and no properties listed in or eligible for the National Register are known to exist which would be affected by the proposed work. This review constitutes the full extent of cultural resources investigations unless comment to this notice is received documenting that significant sites or properties exist which may be affected by this work, or that adequately documents that a potential exists for the location of significant sites or properties within the permit area. Copies of this notice are being sent to the U.S. Department of the Interior, National Park Service, Division of Archeological Services.

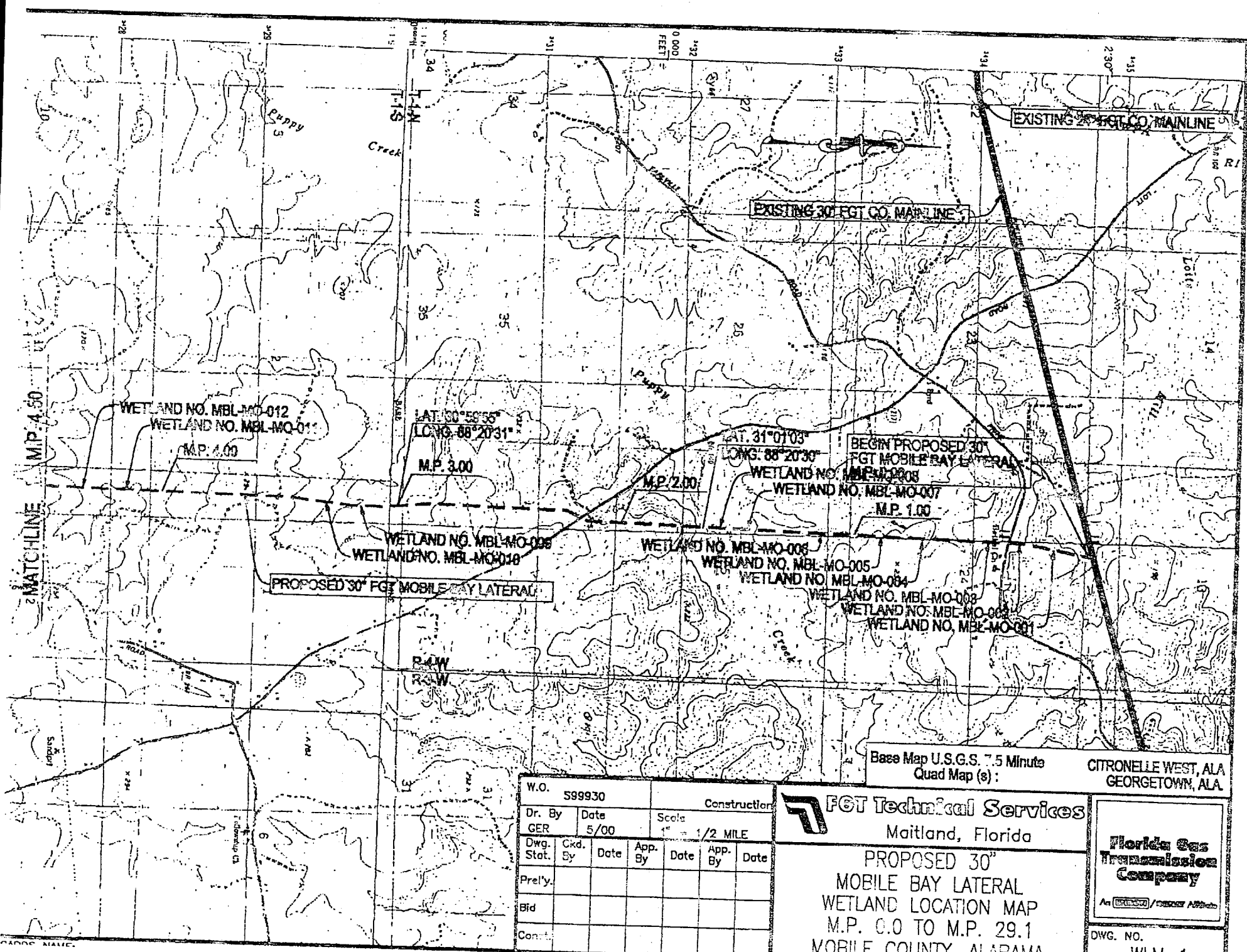
Preliminary review of this application and the U.S. Department of the Interior List of Endangered and Threatened Wildlife and Plants indicates that the proposed activity will not affect listed endangered or threatened species, or their critical habitat.

Correspondence concerning this Public Notice should refer to Public Notice Number AL01-02628-F and should be directed to the District Engineer, U.S. Army Engineer District, Mobile, Post Office Box 2288, Mobile, Alabama 36628-0001, Attention: Regulatory Branch, with a copy to the Alabama Department of Environmental Management, 4171 Commanders Drive, Mobile, Alabama 36615, in time to be received prior to 05 November 2001.

If you have any questions concerning this publication, you may contact this office, Mr. David J. Schwartz, telephone number (251) 690-3246. Please refer to the above Public Notice number.

MOBILE DISTRICT
U.S. Army Corps of Engineers

Enclosures



Base Map U.S.G.S. 7.5 Minute
Quad Map (8):

CITRONELLE WEST, ALA
GEORGETOWN, ALA

W.O.		599930		Construction			
Dr. By	Date	Scale		1" = 1/2 MILE			
GER	5/00						
Dwg. Stat.	Ckd. By	Date	App. By	Date	App. By	Date	
Prel'y.							
Bld							
Const.							

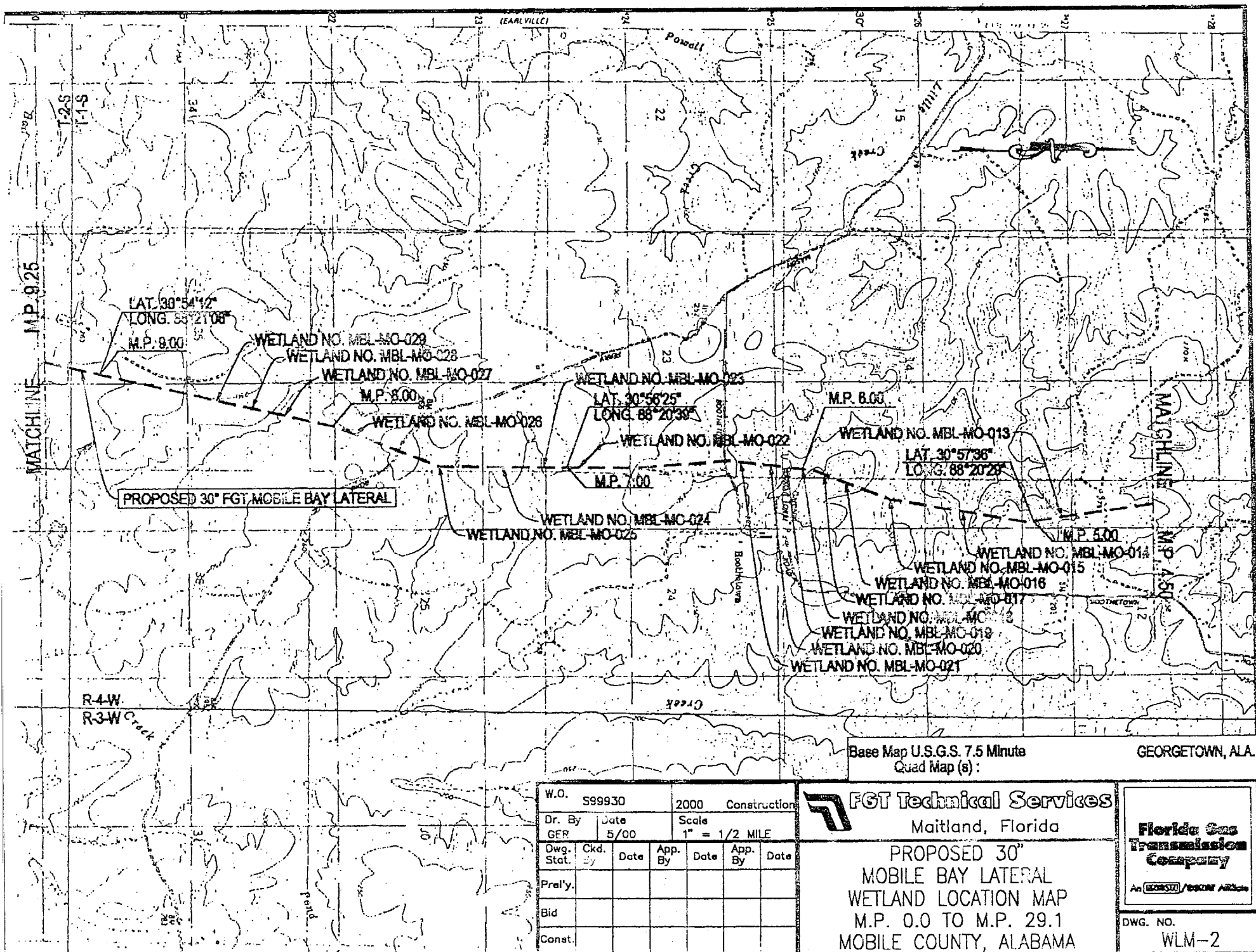
FGT Technical Services
Maitland, Florida

PROPOSED 30"
MOBILE BAY LATERAL
WETLAND LOCATION MAP
M.P. 0.0 TO M.P. 29.1
MOBILE COUNTY, ALABAMA

**Florida Gas
Transmission
Company**

An **ENRON** / **ENERGY** Affiliates

DWG. NO.
WLM-1



Base Map U.S.G.S. 7.5 Minute
Quad Map (s):

GEORGETOWN, ALA.

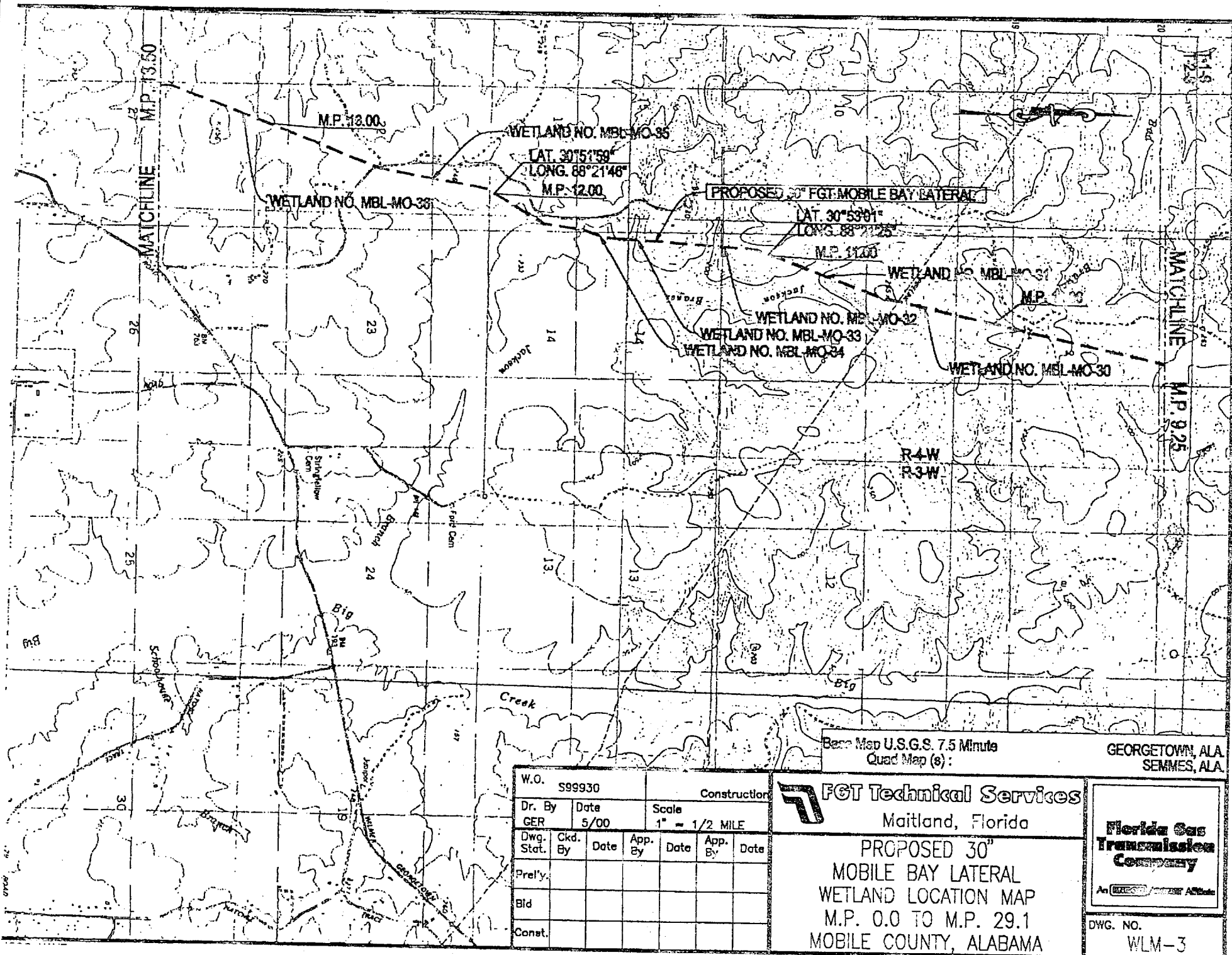
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Dr. By	Date	Scale	
GER	5/00	1" = 1/2 MILE	
Dwg. Stat.	Ckd. By	Date	App. By
Prel'y.			
Bld			
Const.			

FGT Technical Services
Maitland, Florida

**PROPOSED 30"
MOBILE BAY LATERAL
WETLAND LOCATION MAP
M.P. 0.0 TO M.P. 29.1
MOBILE COUNTY, ALABAMA**

**Florida Gas
Transmission
Company**
An **ENTERGY** COMPANY

DWG. NO.
WLM-2



Base Map U.S.G.S. 7.5 Minute
Quad Map (S):

GEORGETOWN, ALA.
SEMMES, ALA.

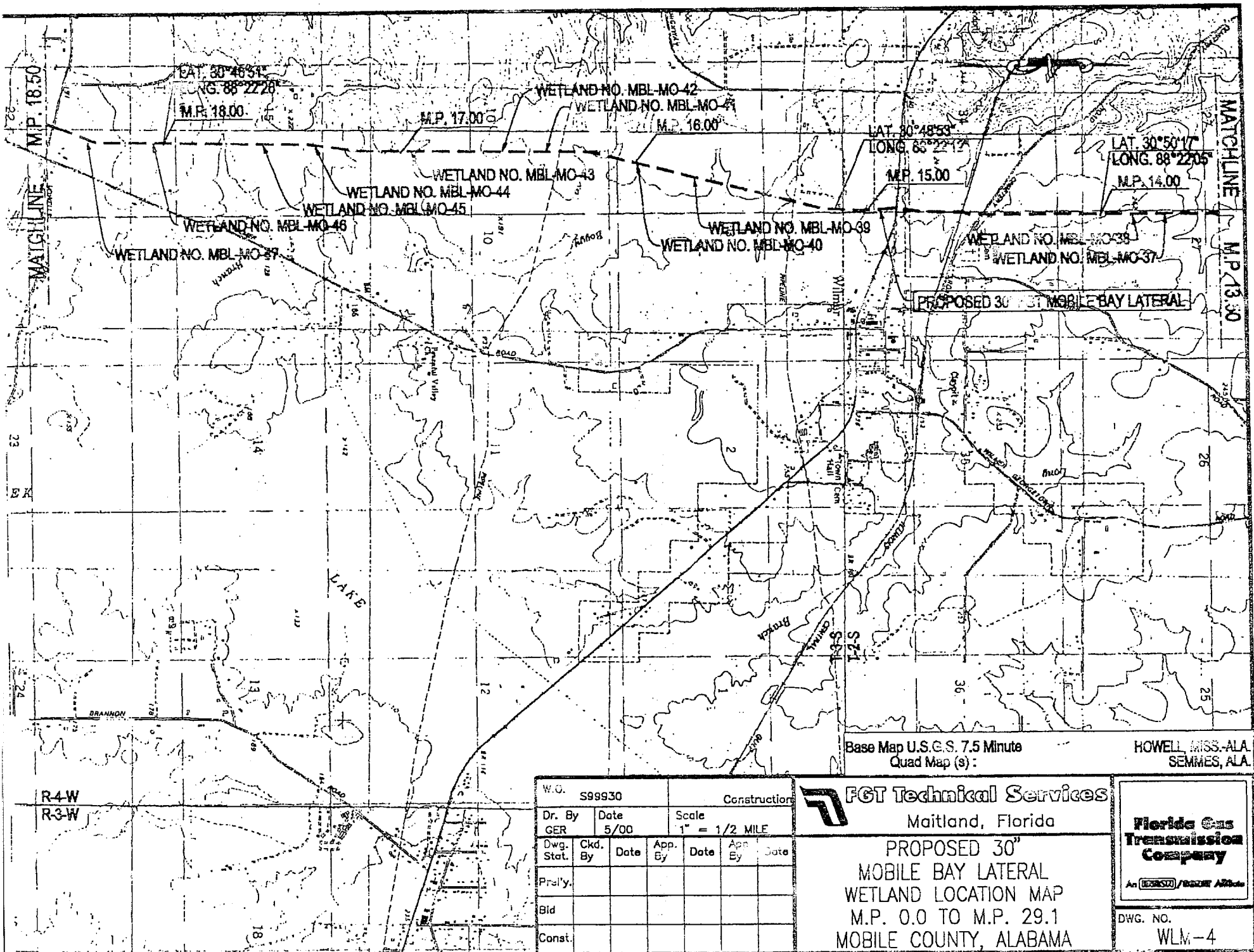
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Dr. By	Date	Scale					
GER	5/00	1" = 1/2 MILE					
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Prel'y.							
Bld							
Const.							

FGT Technical Services
Maitland, Florida

PROPOSED 30"
MOBILE BAY LATERAL
WETLAND LOCATION MAP
M.P. 0.0 TO M.P. 29.1
MOBILE COUNTY, ALABAMA

Florida Gas Transmission Company
An **ENR** COMPANY

DWG. NO.
WLM-3



Base Map U.S.G.S. 7.5 Minute
Quad Map (s):

HOWELL, MISS.-ALA.
SEMMES, ALA.

R4-W
R3-W

W.O. S99930		Construction					
Dr. By	Date	Scale					
GER	5/00	1" = 1/2 MILE					
Dwg. Stat.	Ckd. By	Date	App. By	Date	App. By	Date	
Pres'y.							
Bld							
Const.							



FGT Technical Services

Maitland, Florida

PROPOSED 30"
MOBILE BAY LATERAL
WETLAND LOCATION MAP
M.P. 0.0 TO M.P. 29.1
MOBILE COUNTY, ALABAMA

**Florida Gas
Transmission
Company**

An **ENRIS** / **BOZARD** Affiliates

DWG. NO.

WLM-4

LAT. 30°42'50"
LONG. 88°22'42"
M.P. 23.00

LAT. 30°43'22"
LONG. 88°22'49"
M.P. 22.00

LAT. 30°44'14"
LONG. 88°22'21"
M.P. 21.00

LAT. 30°45'08"
LONG. 88°22'12"
M.P. 20.00

LAT. 30°45'58"
LONG. 88°22'45"
M.P. 19.00

PROPOSED 30" FGT MOBILE BAY LATERAL

WETLAND NO. MBL-MO-85
WETLAND NO. MBL-MO-86

WETLAND NO. MBL-MO-55
WETLAND NO. MBL-MO-58

WETLAND NO. MBL-MO-49
WETLAND NO. MBL-MO-50
WETLAND NO. MBL-MO-51
WETLAND NO. MBL-MO-52

WETLAND NO. MBL-MO-48

Base Map U.S.G.S. 7.5 Minute SEMMES, ALA. HOWELL, MISS. ALA.
Quad Map (s): TANNER WILLIAMS, ALA. HURLEY, MISS. ALA.

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Dr. By	Date	Scale				
GER	2000	1" = 1/2 MILE				
Dwg. Stet.	Ckd. By	Date	App. By	Date	App. By	Date
Prel'y.						
Bld						
Const.						

FGT Technical Services
Maitland, Florida

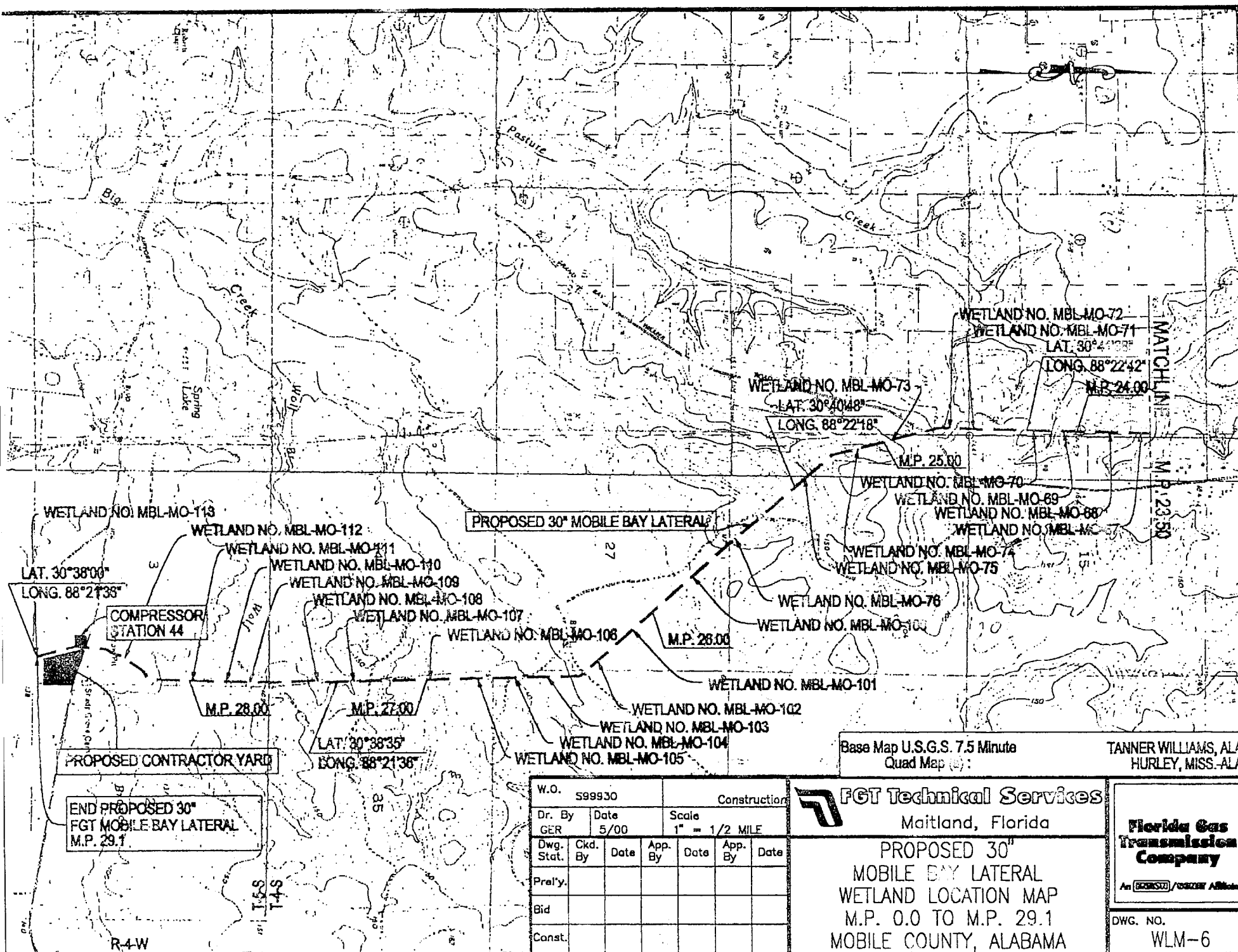
PROPOSED 30"
MOBILE BAY LATERAL
WETLAND LOCATION MAP
M.P. 0.0 TO M.P. 29.1
MOBILE COUNTY, ALABAMA

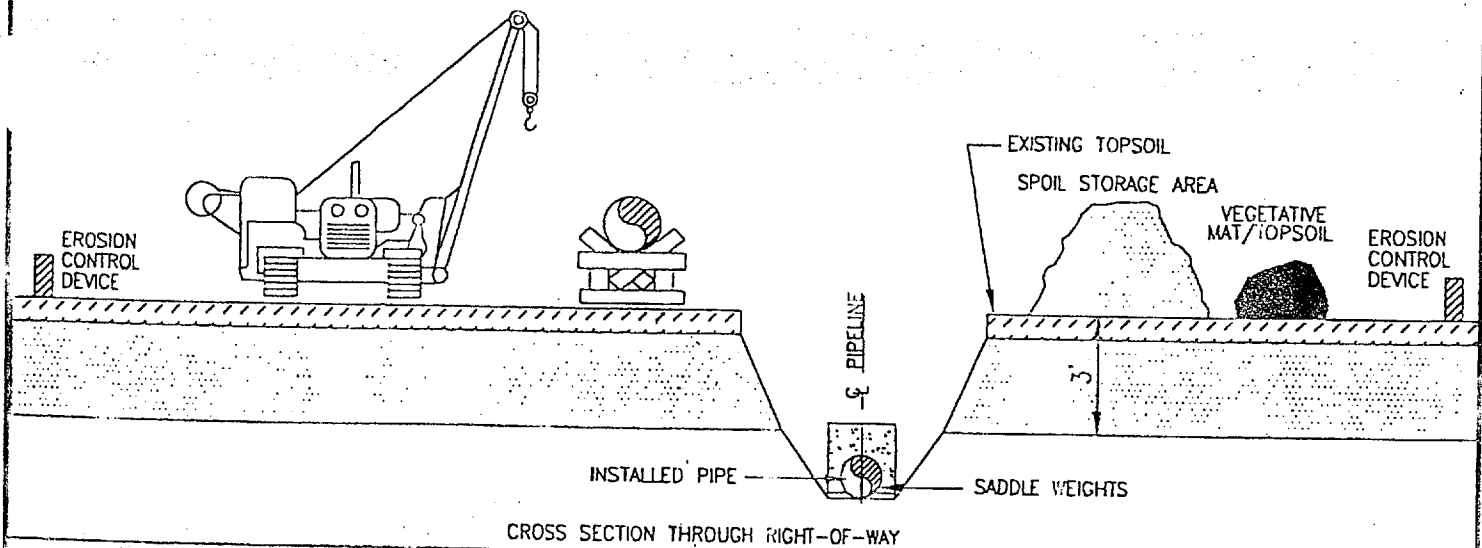
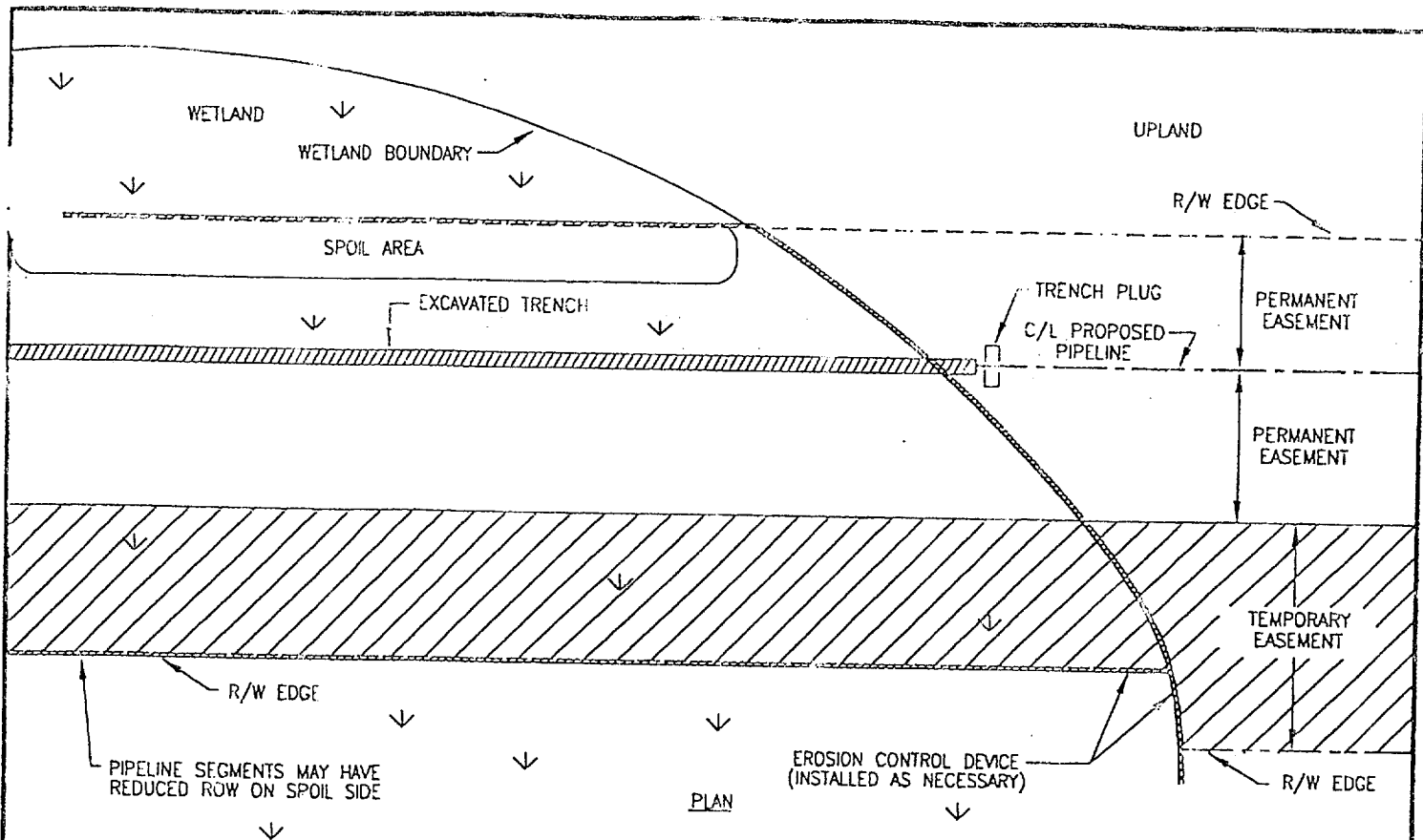
Florida Gas Transmission Company
An ENTERPRISE ENERGY COMPANY

DWG. NO.
WLM-5

R-4-W

DDS NAME:





NOTES:

1. CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH FGT'S WETLAND AND WATERBODY CONSTRUCTION AND MITIGATION PROCEDURES (APPENDIX C), AND UPLAND EROSION CONTROL, REVEGETATION AND MAINTENANCE PLAN (APPENDIX D).
2. CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL PERMITS.
3. EROSION CONTROL DEVICES TO BE INSTALLED AS NECESSARY.
4. WETLAND SOIL CONDITIONS MAY WARRANT USE OF ADDITIONAL 25' OF EXISTING UTILITY CORRIDORS FOR SPOIL STORAGE.

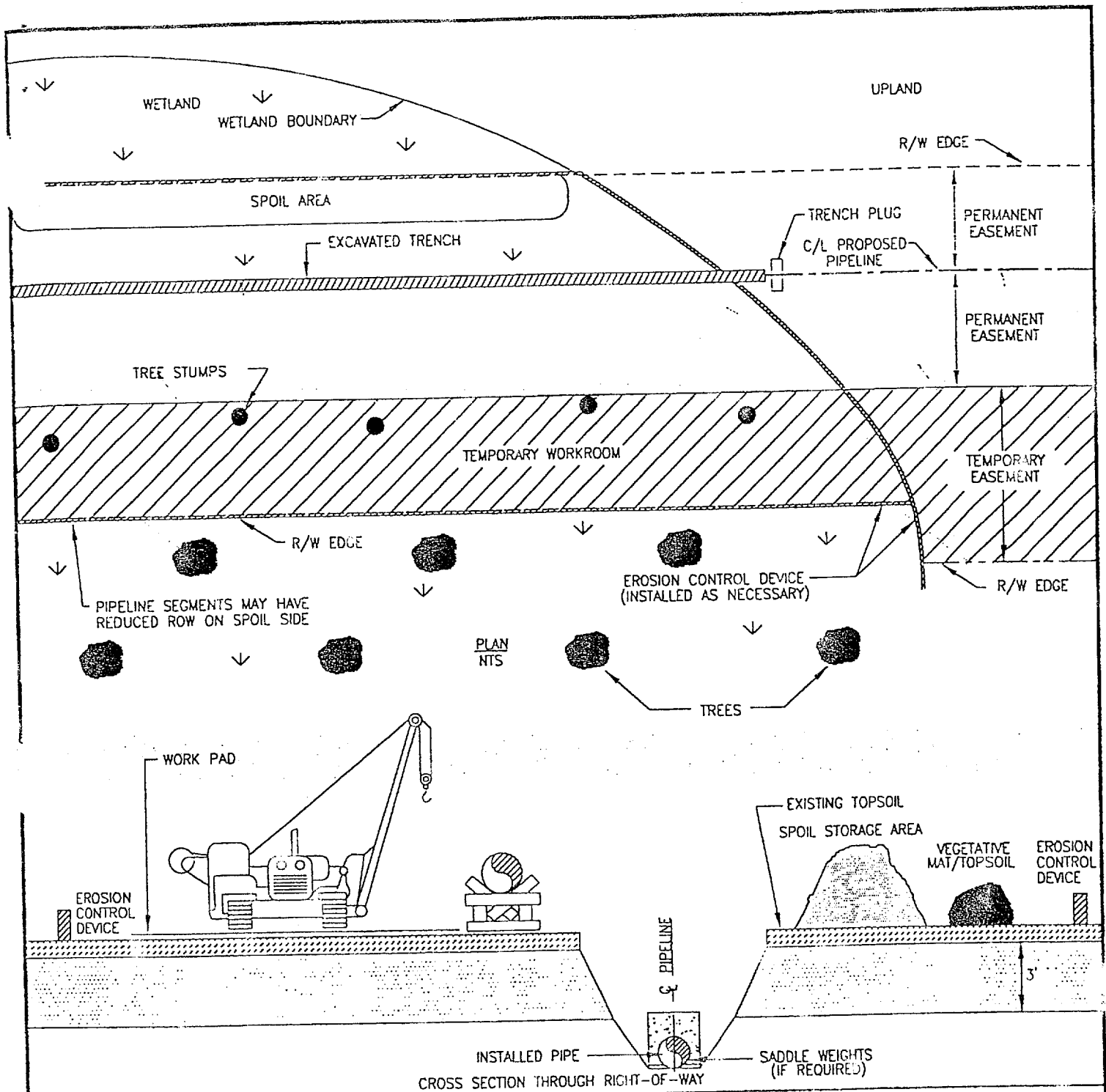
**Florida Gas
Transmission
Company**

An Enron/El Paso Affiliate

Maitland, Florida

FGT PHASE V EXPANSION
WETLAND CROSSING
METHOD 1
(NON-SATURATED)
"DRY"

DRAWN BY GLB	DATE 4/14/00
SCALE NONE	YEAR 2000
FILE NAME	P11-1405
DWG. NO.	TYPICAL 1



NOTES:

1. CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH FGT'S WETLAND AND WATERBODY CONSTRUCTION AND MITIGATION PROCEDURES (APPENDIX C), AND UPLAND EROSION CONTROL, REVEGETATION AND MAINTENANCE PLAN (APPENDIX D).
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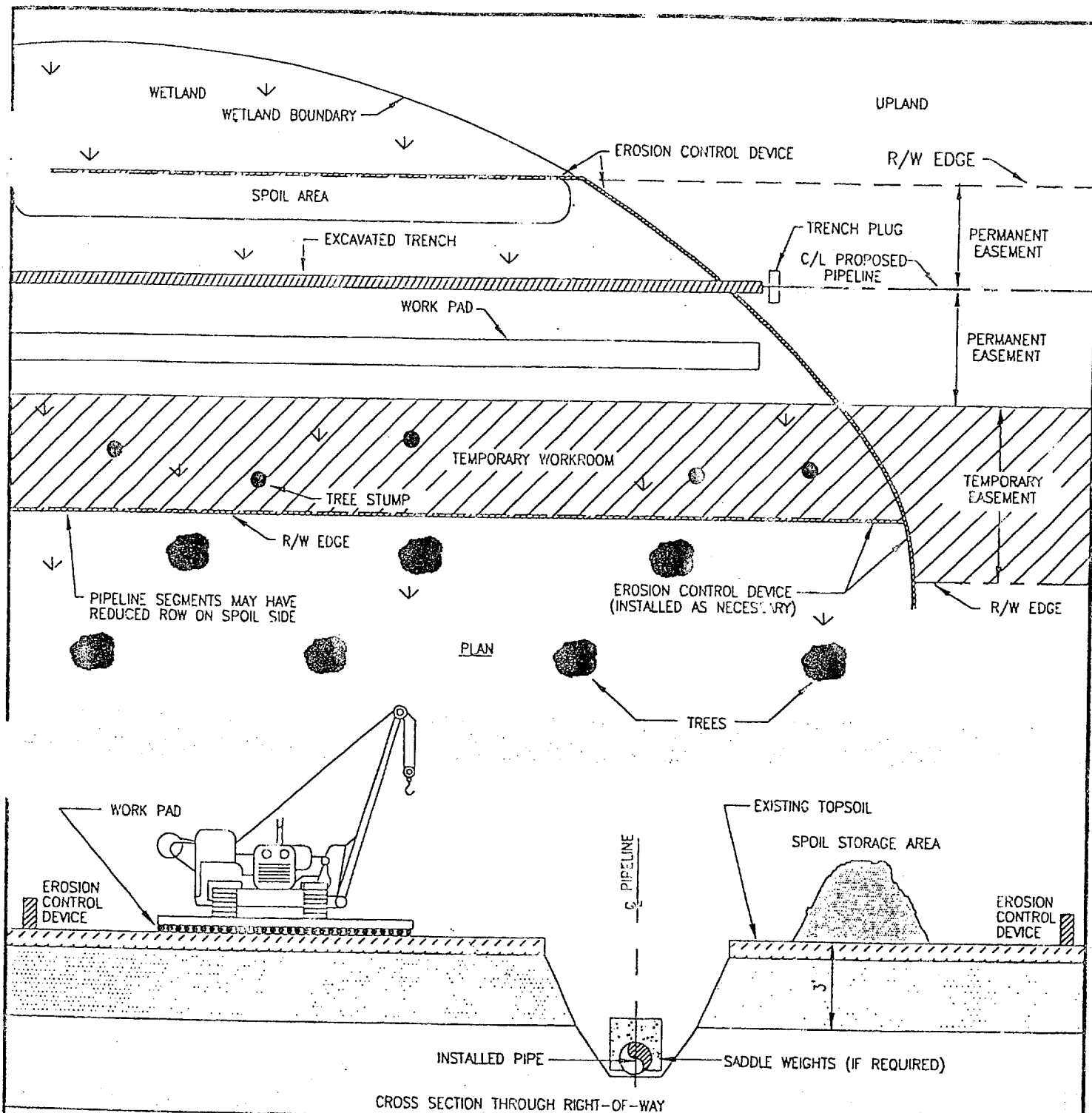
**Florida Gas
Transmission
Company**

An Enron/EI Paso Affiliate

Maitland, Florida

FGT PHASE V EXPANSION
WETLAND CROSSING
METHOD 2
(FORESTED WETLAND)
DRY

DRAWN BY	GLB	DATE	4/14/00
SCALE	NONE	YEAR	2000
FILE NAME	P11-1406		
DWG. NO.	TYPICAL 2		



NOTES:

1. CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH FGT'S WETLAND AND WATERBODY CONSTRUCTION AND MITIGATION PROCEDURES (APPENDIX C), AND UPLAND EROSION CONTROL, REVEGETATION AND MAINTENANCE PLAN (APPENDIX D).
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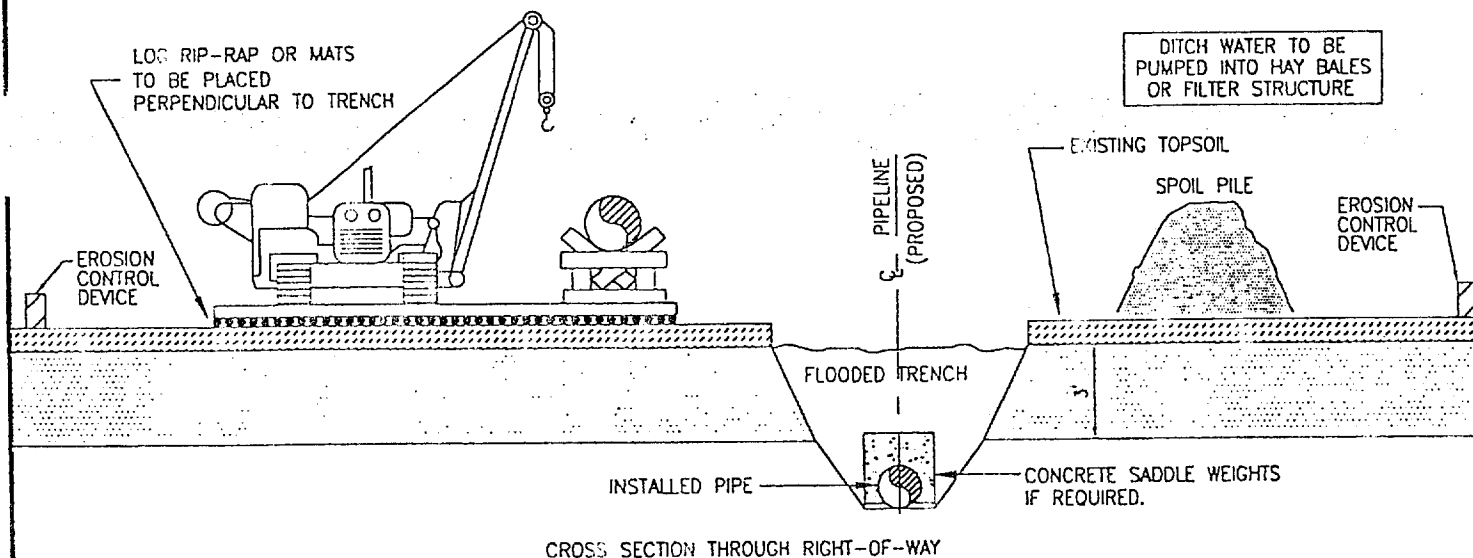
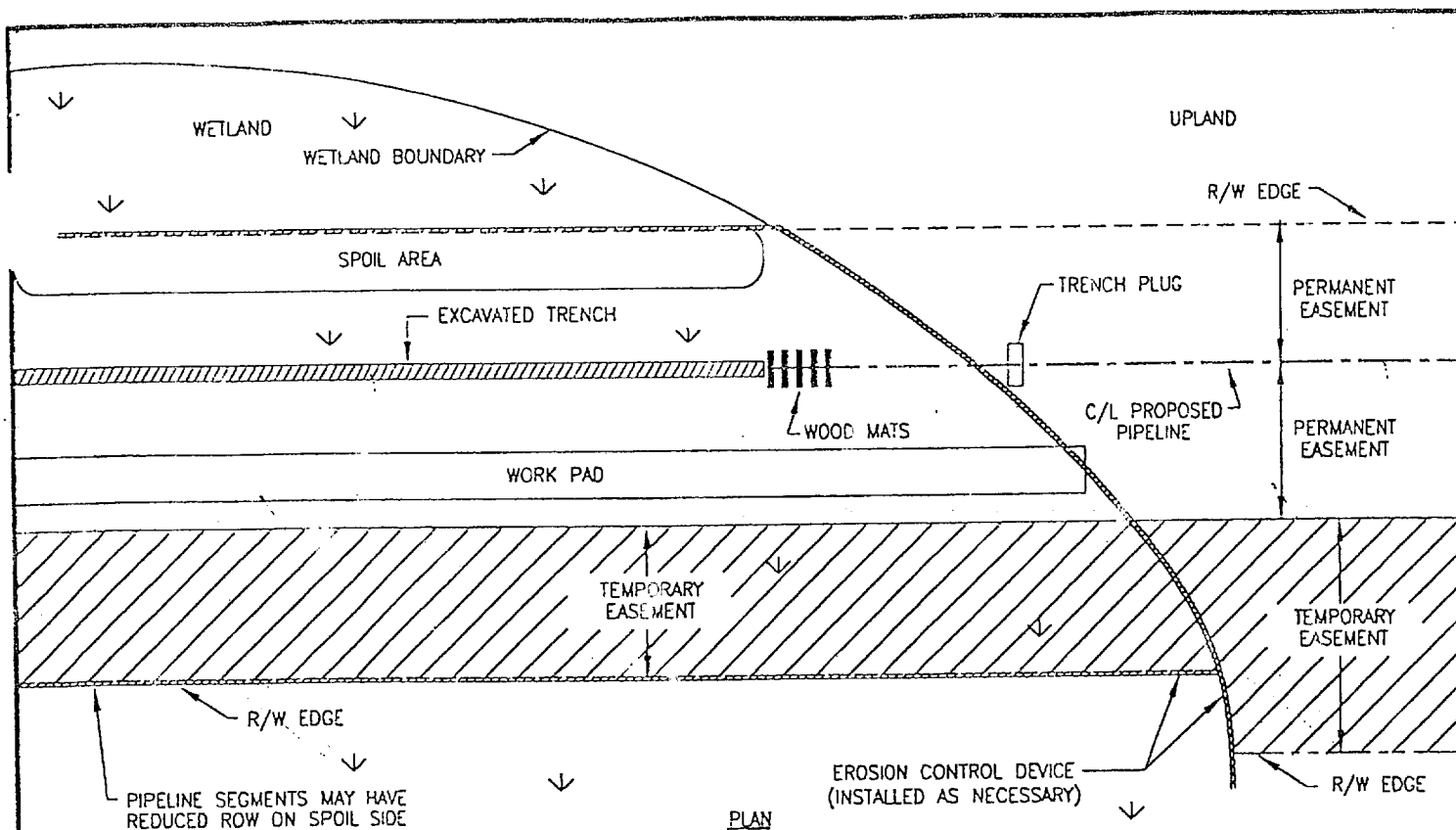
**Florida Gas
Transmission
Company**

An Enron/EI Paso Affiliate

Maitland, Florida

FGT PHASE V EXPANSION
WETLAND CROSSING
METHOD 3
(FORESTED WETLAND)
SATURATED

DRAWN BY GLB	DATE 4/14/00
SCALE NONE	YEAR 2000
FILE NAME P11-1401	
DWG. NO. TYPICAL 3	



NOTES:

1. CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH FGT'S WETLAND AND WATERBODY CONSTRUCTION AND MITIGATION PROCEDURES (APPENDIX C), AND UPLAND EROSION CONTROL, REVEGETATION AND MAINTENANCE PLAN (APPENDIX D).
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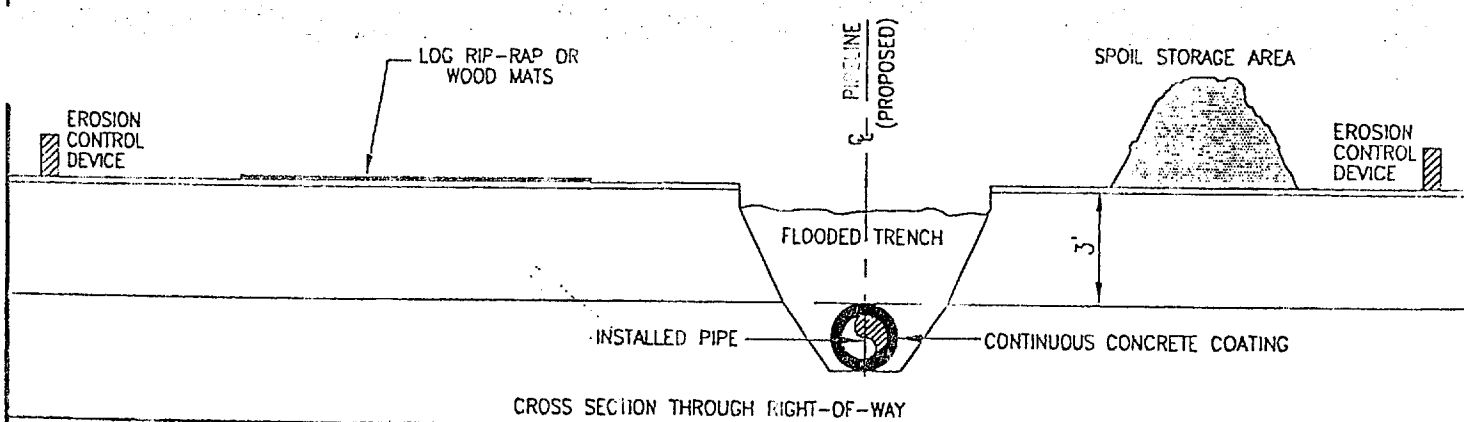
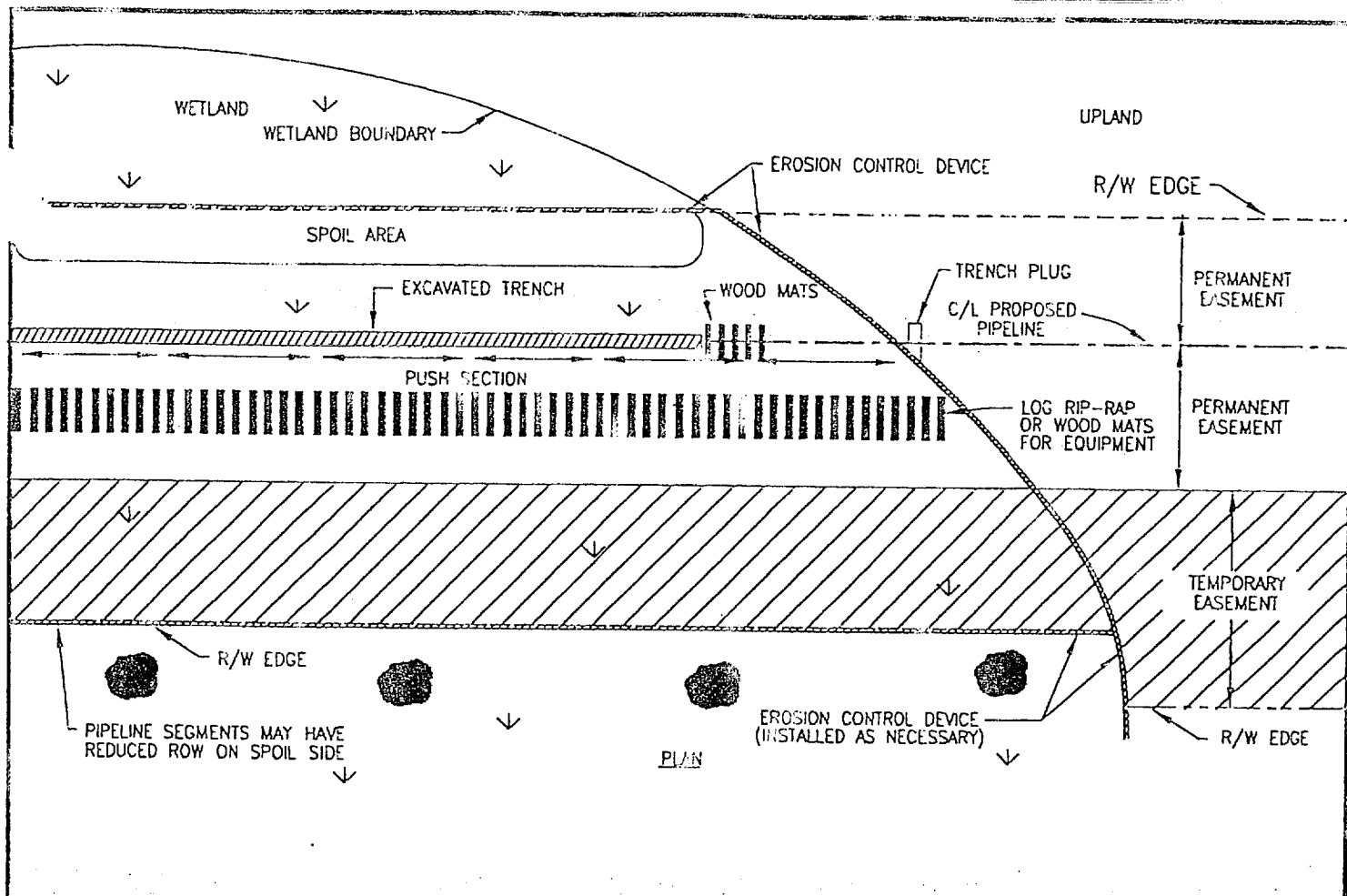
**Florida Gas
Transmission
Company**

An Enron/EI Paso Affiliates

Maitland, Florida

FGT PHASE V EXPANSION
WETLAND CROSSING
METHOD 4
(SATURATED WETLAND)

DRAWN BY	GLB	DATE	4/14/00
SCALE	NONE	YEAR	2000
FILE NAME	P11-1402		
DWG. NO.	TYPICAL 4		



NOTES:

1. CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH FGT'S WETLAND AND WATERBODY CONSTRUCTION AND MITIGATION PROCEDURES (APPENDIX C), AND UPLAND EROSION CONTROL, REVEGETATION AND MAINTENANCE PLAN (APPENDIX D).
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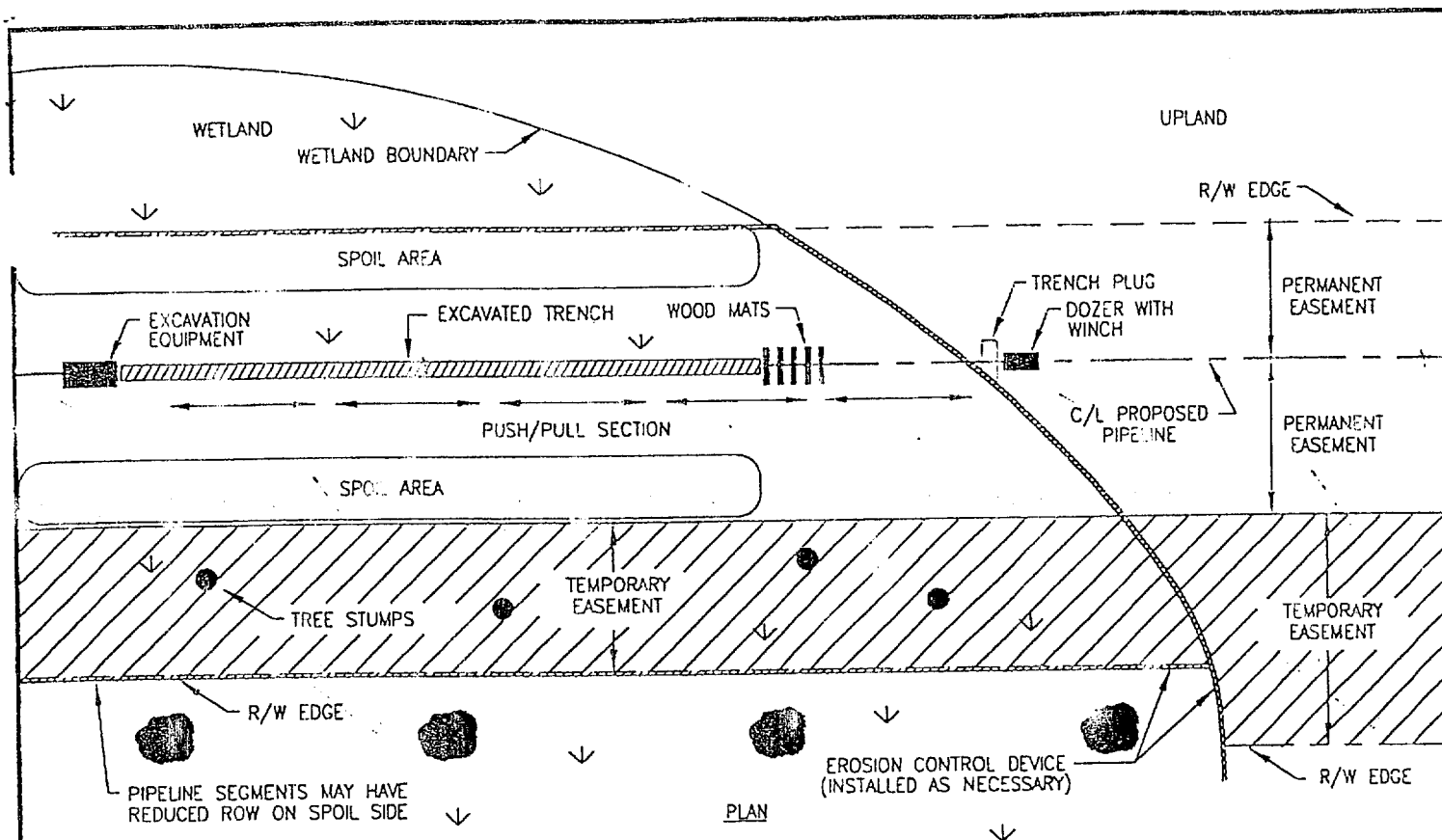
**Florida Gas
Transmission
Company**

An Enron/El Paso Affiliate

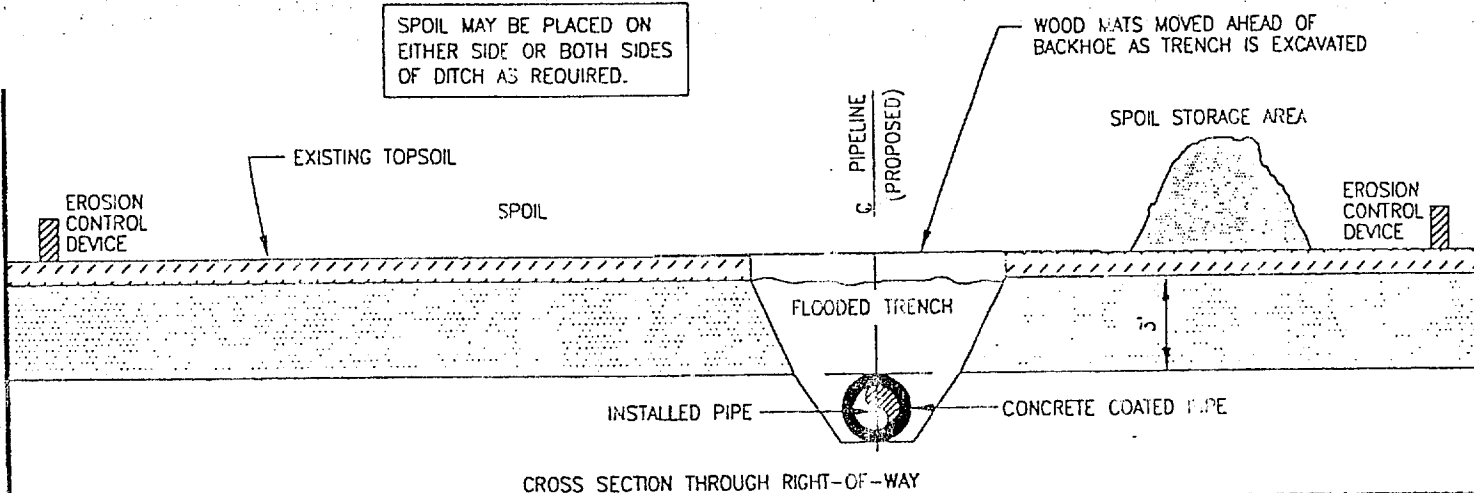
Maitland, Florida

FGT PHASE V EXPANSION
WETLAND CROSSING
METHOD 5
(SATURATED WETLAND,
FLOODED)

DRAWN BY GLB	DATE 4/14/00
SCALE NONE	YEAR 2000
FILE NAME	P11-1403
DWG. NO.	TYPICAL 5



SPOIL MAY BE PLACED ON
EITHER SIDE OR BOTH SIDES
OF DITCH AS REQUIRED.



NOTES:

1. CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH FGT'S WETLAND AND WATERBODY CONSTRUCTION AND MITIGATION PROCEDURES (APPENDIX C), AND UPLAND EROSION CONTROL, REVEGETATION AND MAINTENANCE PLAN (APPENDIX D).
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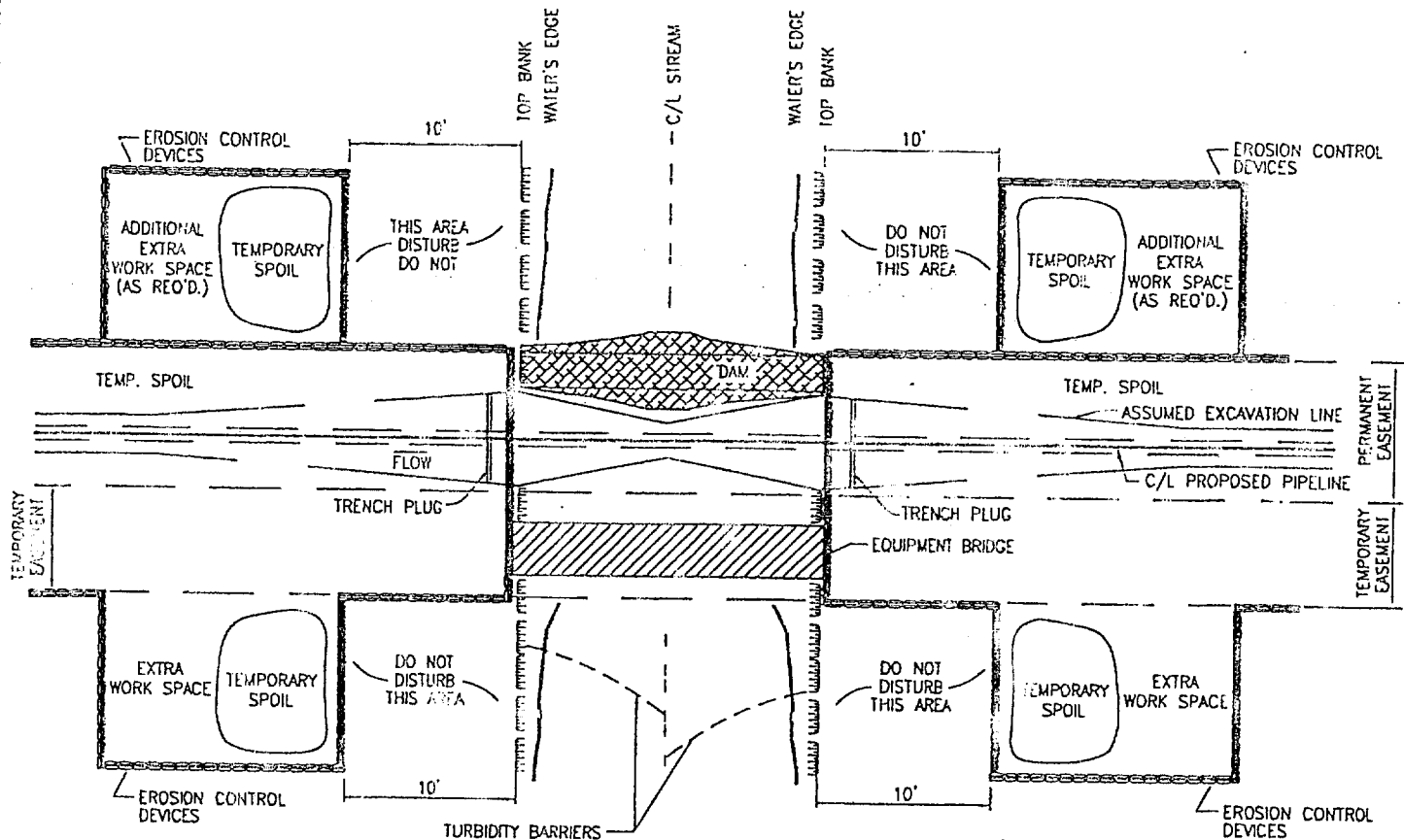
**Florida Gas
Transmission
Company**

An Enbridge Energy Partners Affiliates

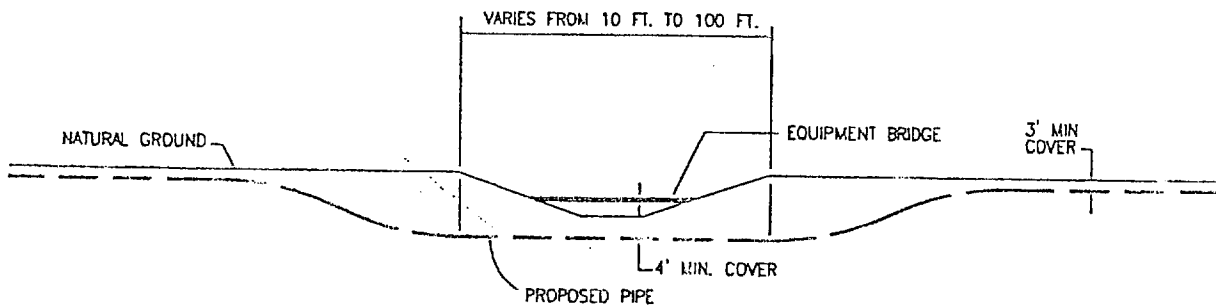
McDonald, Florida

FGT PHASE V EXPANSION
PUSH-PULL
WETLAND CROSSING
METHOD 6
(FLOODED WETLAND)

DRAWN BY	GLB	DATE	4/14/00
SCALE	NONE	YEAR	2000
FILE NAME	P11-1404		
DWG. NO.	TYPICAL 6		



PLAN



PROFILE
TYPICAL OPEN CUT DETAIL

NOTES:

1. CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH FGT'S WETLAND AND WATERBODY CONSTRUCTION AND MITIGATION PROCEDURES (APPENDIX C), AND UPLAND EROSION CONTROL, REVEGETATION AND MAINTENANCE PLAN (APPENDIX D).
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**Florida Gas
Transmission
Company**

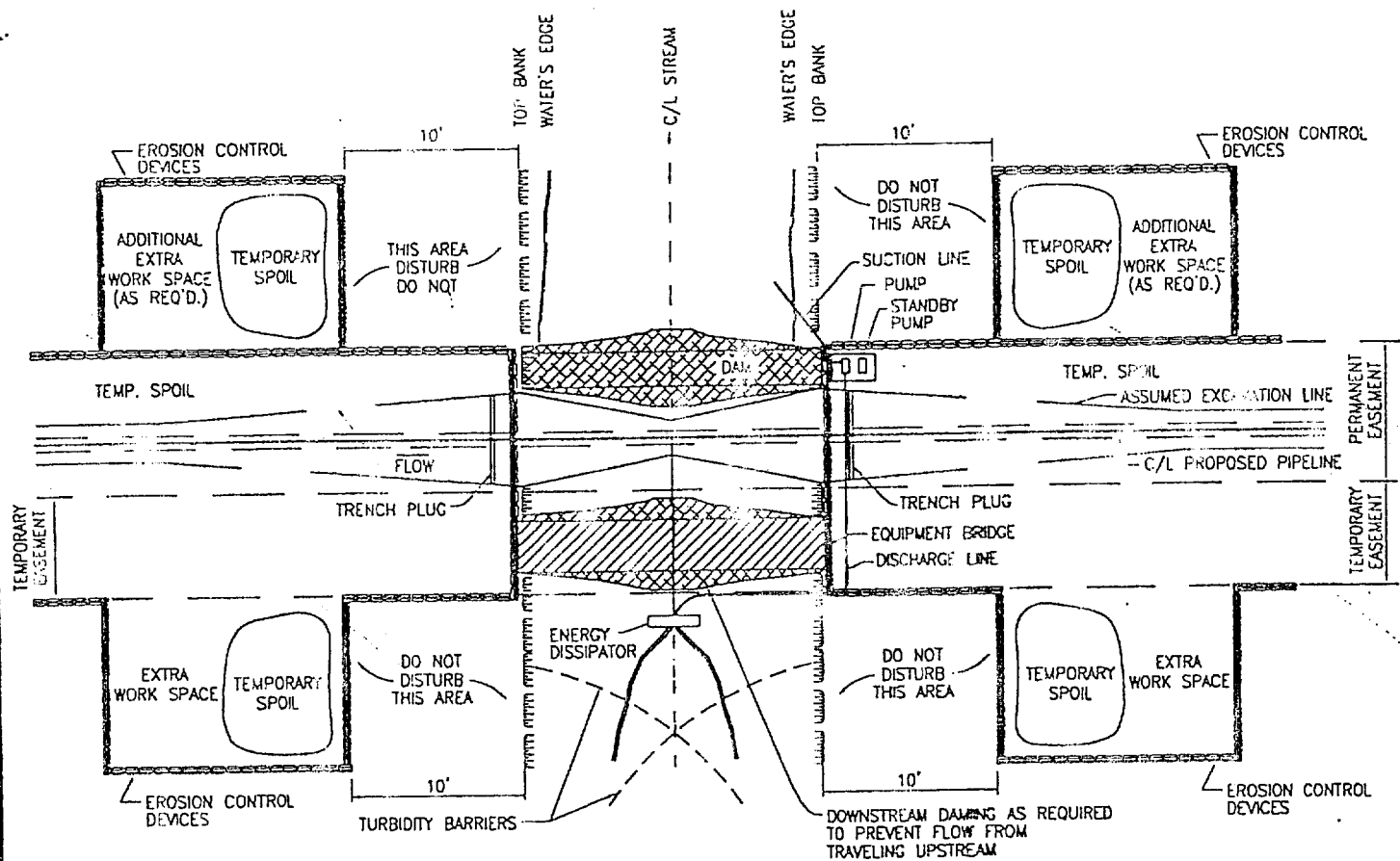
An Enron/EI Paso Affiliate

Maitland, Florida

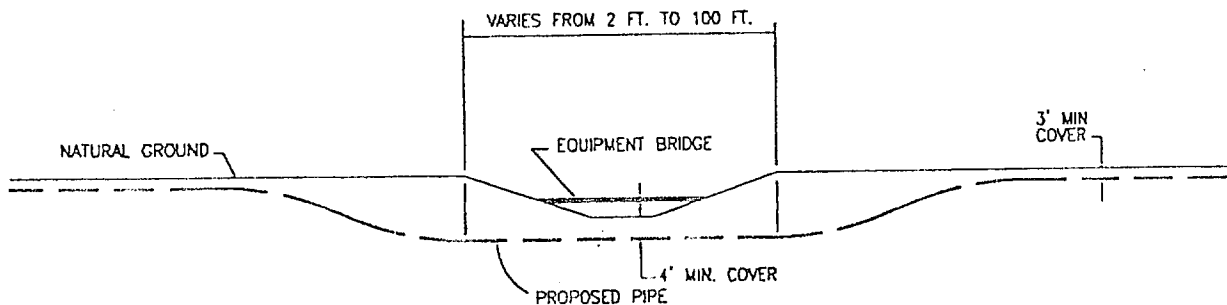
FGT PHASE V EXPANSION

"OPEN CUT"
WATERBODY CROSSING
CONSTRUCTION METHOD

DRAWN BY	GLB	DATE	4/14/00
SCALE	NONE	YEAR	2000
FILE NAME	P11-1400C		
DWG. NO.	TYPICAL 7		



PLAN



PROFILE

TYPICAL DAM & PUMP AROUND DETAIL

NOTES:

- CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH FGT'S WETLAND AND WATERBODY CONSTRUCTION AND MITIGATION PROCEDURES (APPENDIX C), AND UPLAND EROSION CONTROL, REVEGETATION AND MAINTENANCE PLAN (APPENDIX D).
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**Florida Gas
Transmission
Company**

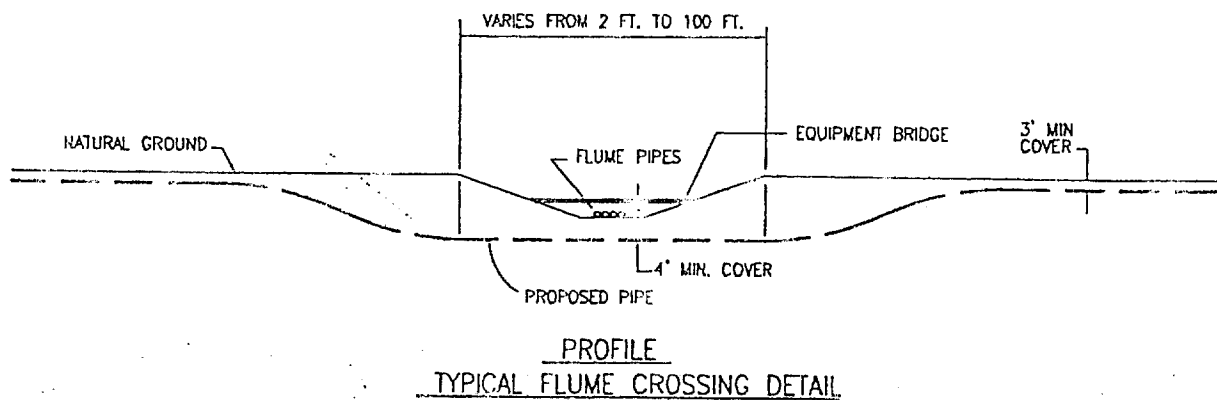
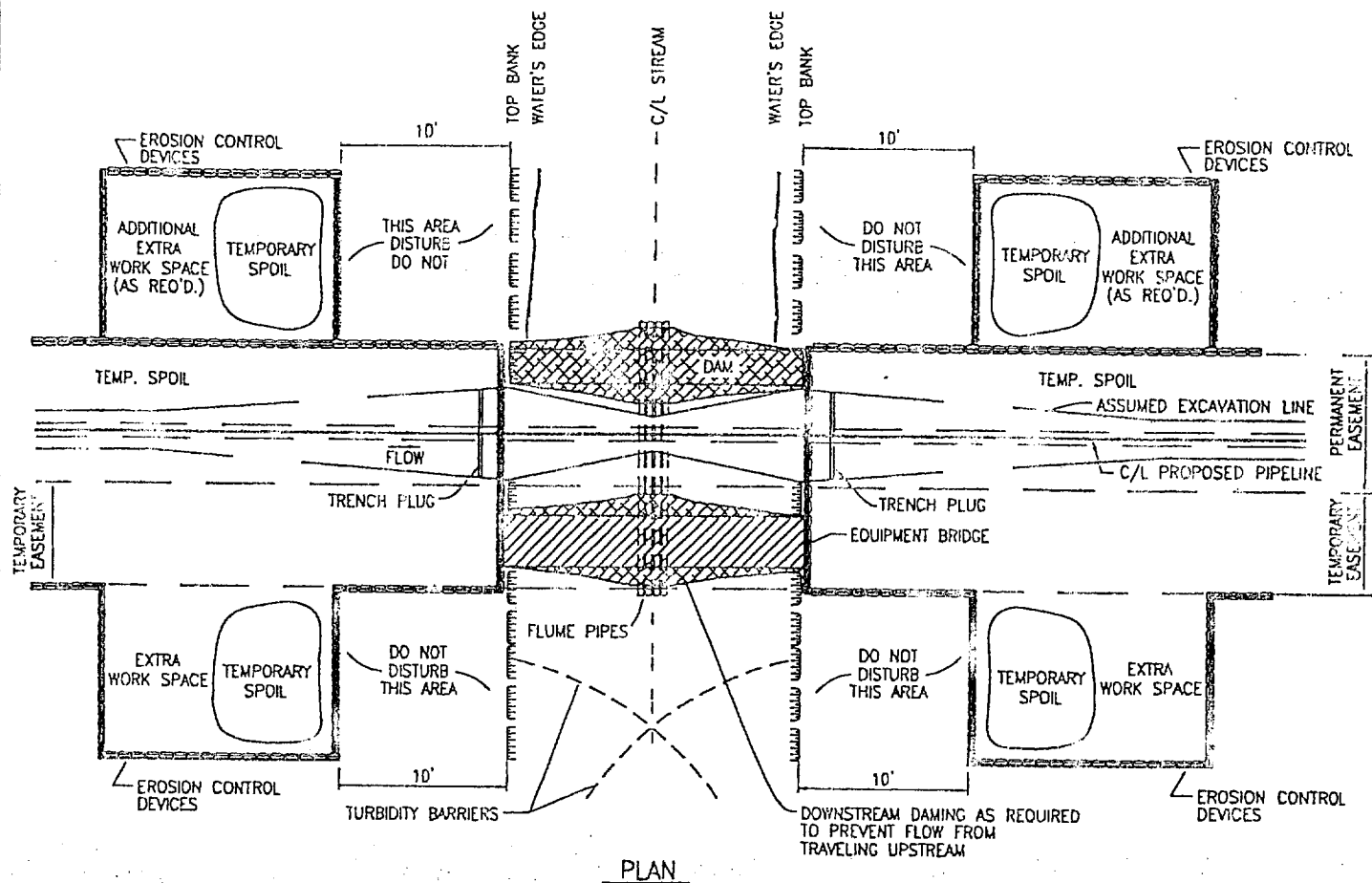
An Enron/EI Paso Affiliate

Maitland, Florida

FGT PHASE V EXPANSION

"DAM AND PUMP"
WATERBODY CROSSING
CONSTRUCTION METHOD

DRAWN BY GLB	DATE 4/14/00
SCALE NONE	YEAR 2000
FILE NAME	P11-1400A
DWG. NO.	TYPICAL 8



NOTES:

1. CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH FGT'S WETLAND AND WATERBODY CONSTRUCTION AND MITIGATION PROCEDURES (APPENDIX C), AND UPLAND EROSION CONTROL, REVEGETATION AND MAINTENANCE PLAN (APPENDIX D).
2. CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL PERMITS.
3. EROSION CONTROL DEVICES AND TURBIDITY BARRIERS TO BE INSTALLED, AS REQUIRED.
4. WETLAND SOIL CONDITIONS MAY WARRANT USE OF ADDITIONAL 25' OF EXISTING UTILITY CORRIDORS.

**Florida Gas
Transmission
Company**

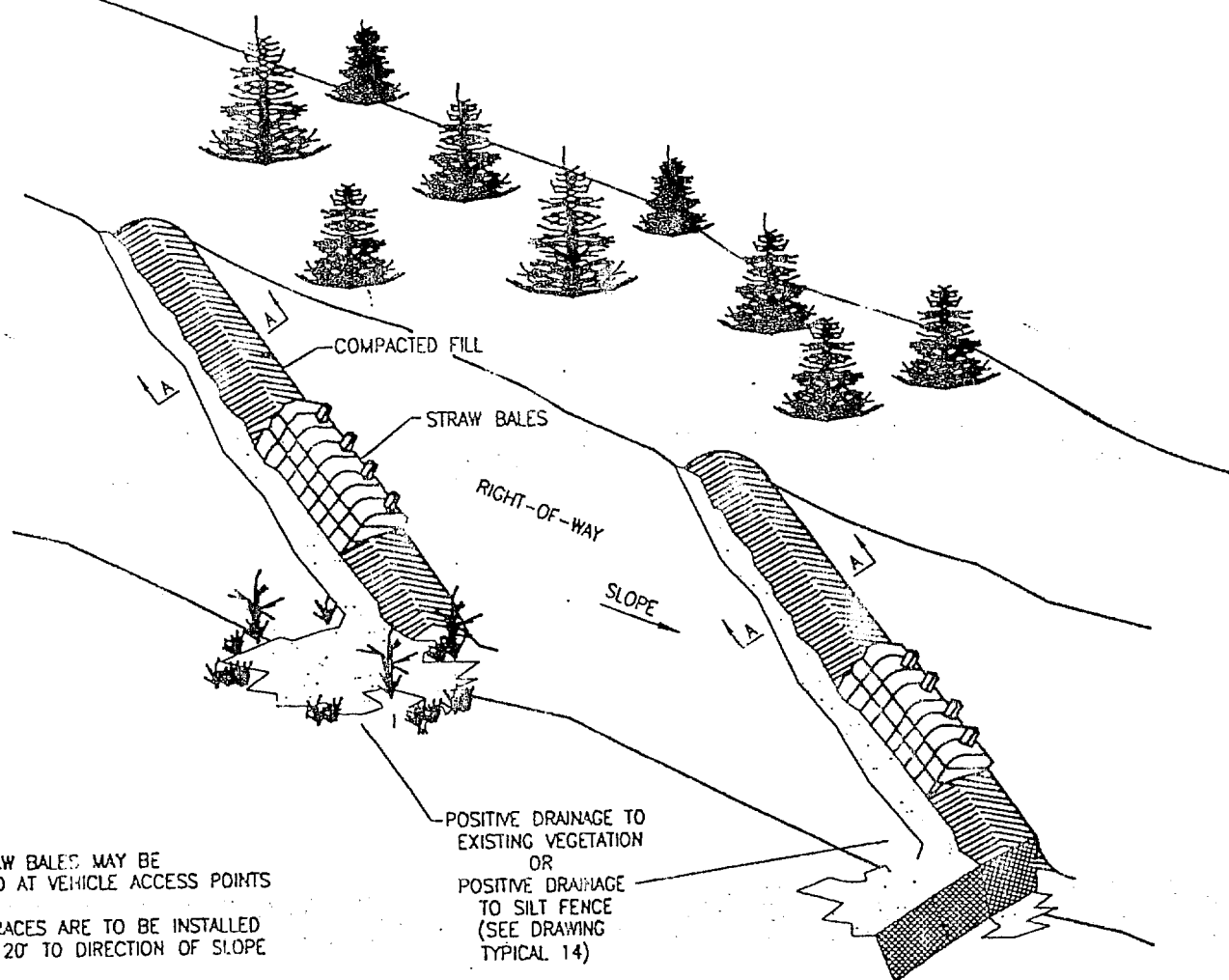
An Enron/EI Paso Affiliate

Maitland, Florida

FGT PHASE V EXPANSION

"FLUME"
WATERBODY CROSSING
CONSTRUCTION METHOD

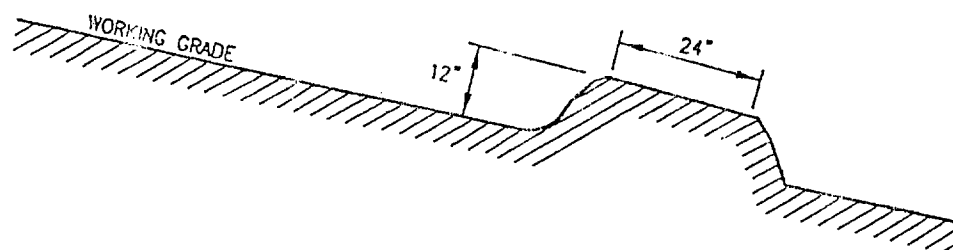
DRAWN BY GLB	DATE 4/14/00
SCALE NONE	YEAR 2000
FILE NAME	P11-1400B
DWG. NO.	TYPICAL 9



NOTES:

1. STRAW BALES MAY BE USED AT VEHICLE ACCESS POINTS
2. TERRACES ARE TO BE INSTALLED AT 120' TO DIRECTION OF SLOPE
3. SPACE BETWEEN BREAKERS TO BE DETERMINED BY DEGREE OF SLOPE.

POSITIVE DRAINAGE TO EXISTING VEGETATION OR
POSITIVE DRAINAGE TO SILT FENCE (SEE DRAWING TYPICAL 14)



CROSS-SECTION (A-A)
(NOT TO SCALE)

**Florida Gas
Transmission
Company**

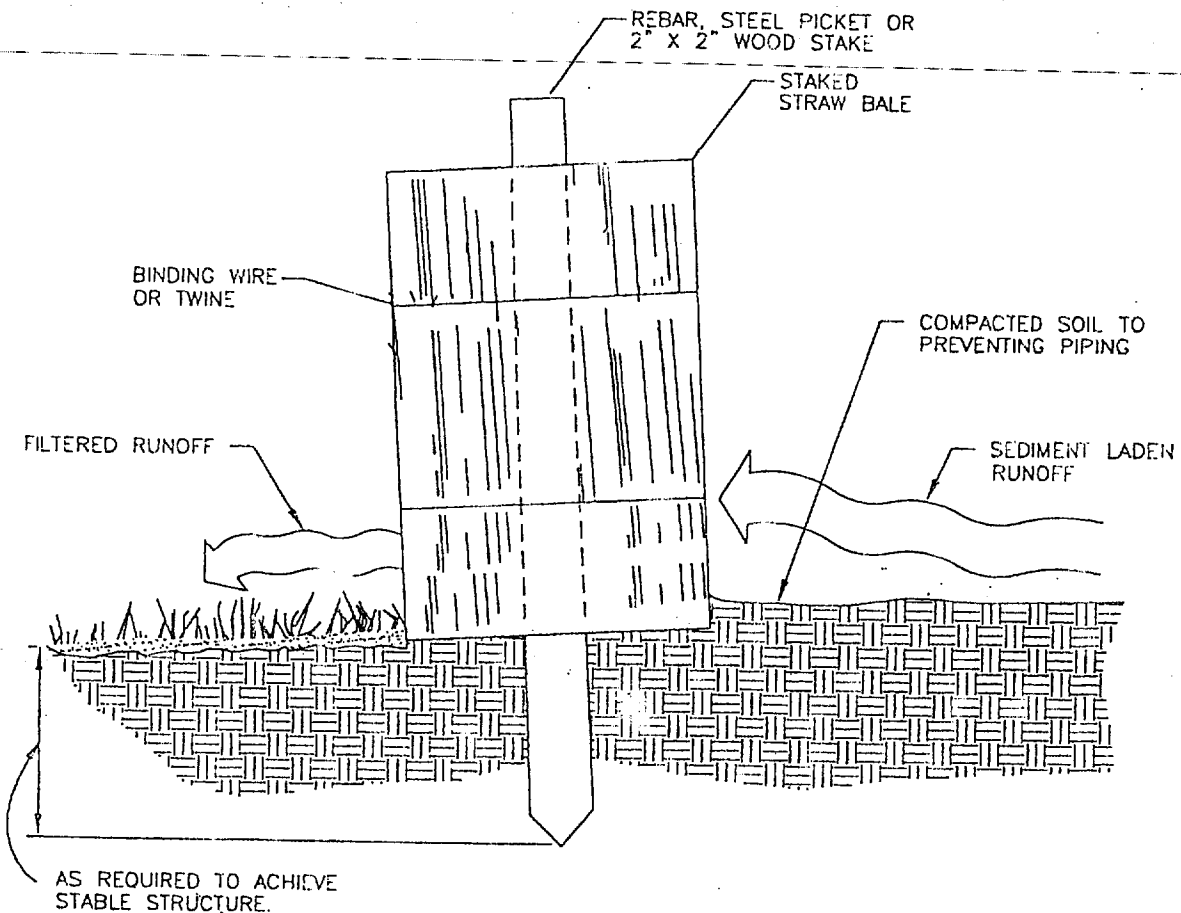
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FGT PHASE V EXPANSION

DIVERSION TERRACES
(SLOPE BREAKERS)

DRAWN BY	GLB	DATE	4/14/00
SCALE	NONE	YEAR	2000
FILE NAME	P11-1308		
DWG. NO.	TYPICAL 10		



**Florida Gas
Transmission
Company**

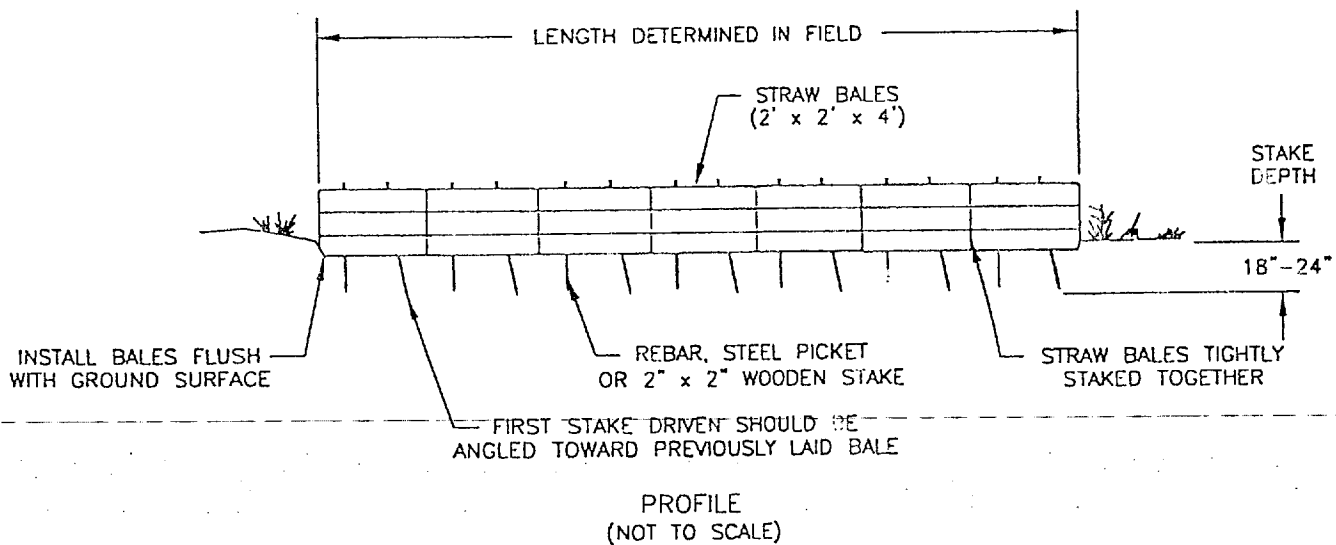
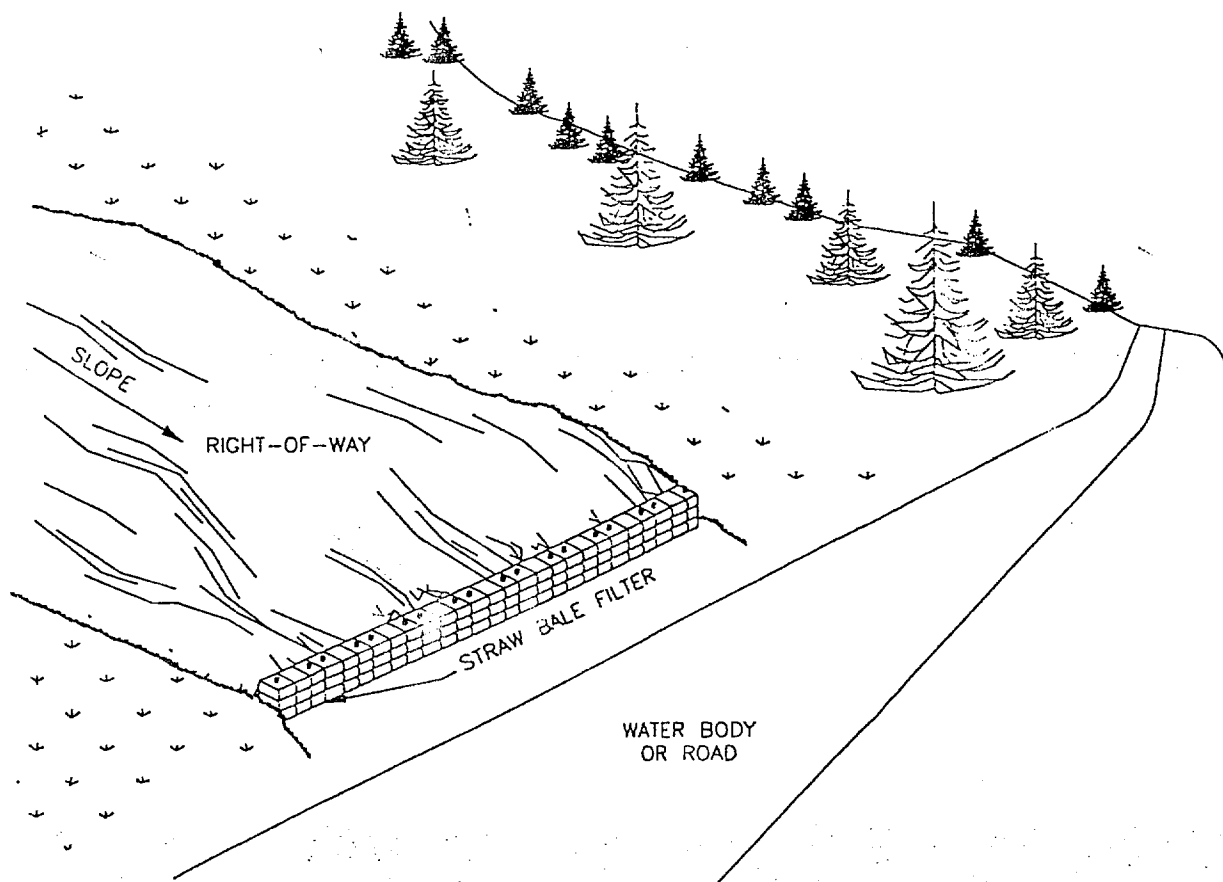
An Enron/El Paso Affiliate

Maitland, Florida

FGT PHASE V EXPANSION

CROSS-SECTION OF
A PROPERLY INSTALLED
STRAW BALE

DRAWN BY GLB	DATE 4/14/00
SCALE NONE	YEAR 2000
FILE NAME P11-1305	
DWG. NO. TYPICAL 11	



Florida Gas Transmission Company

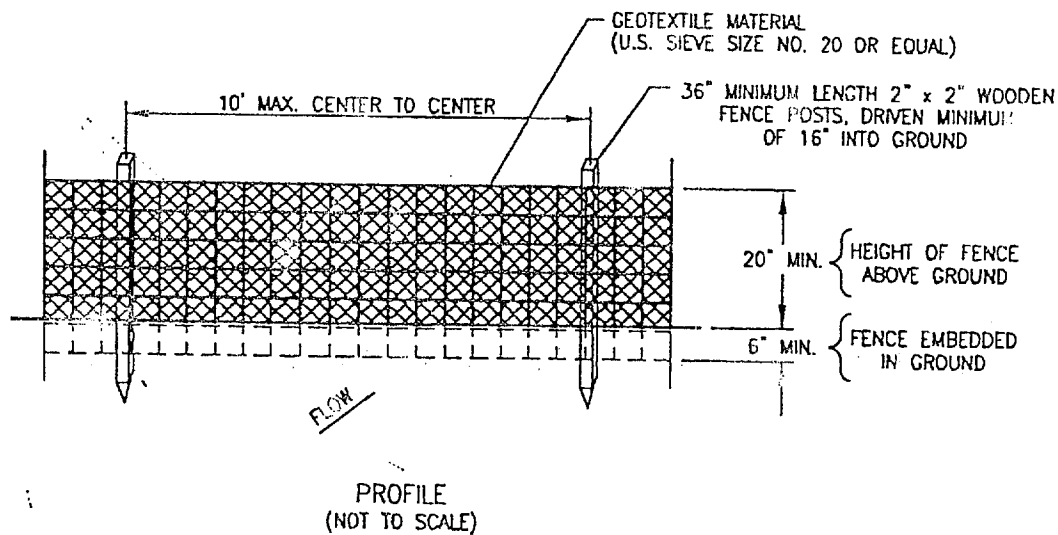
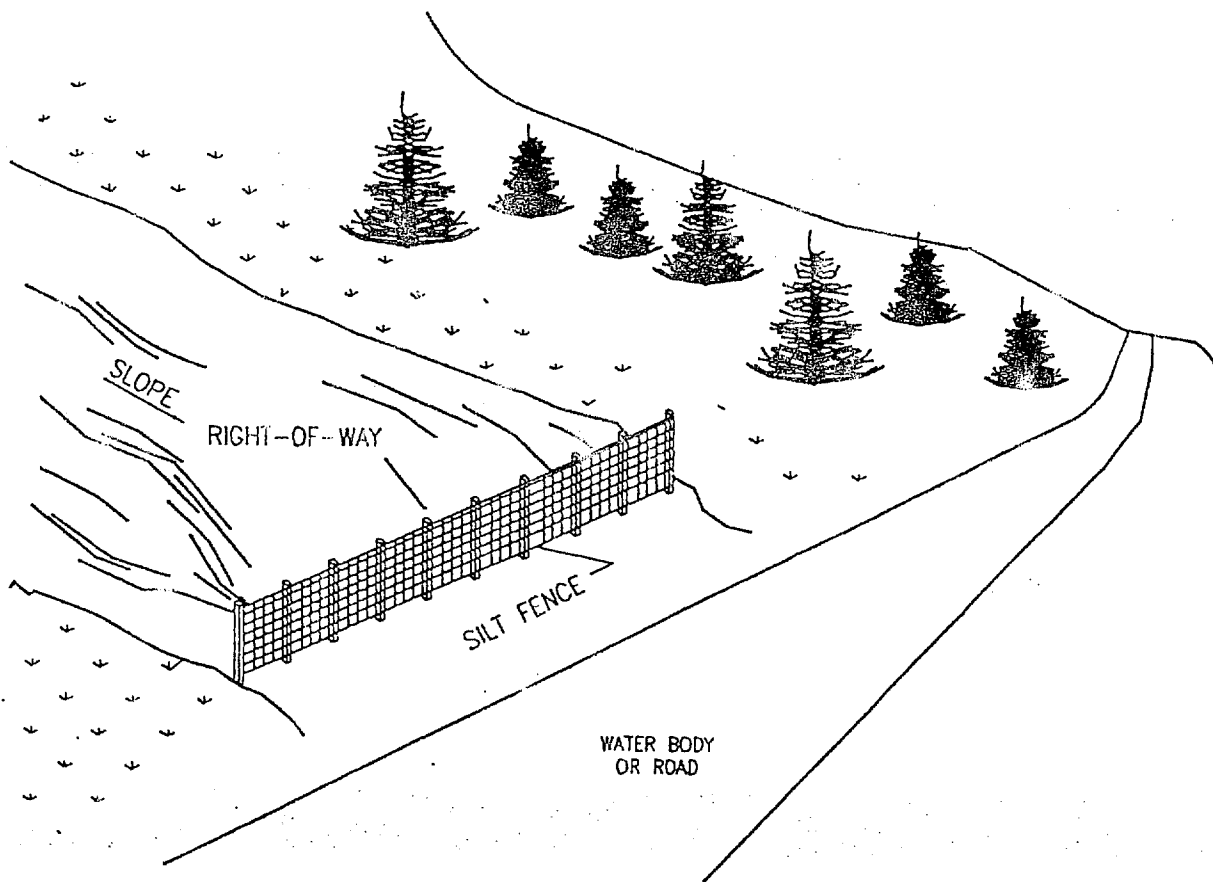
An Enron/EI Paso Affiliate

Maitland, Florida

FGT PHASE V EXPANSION

STRAW OR HAY
BALE FILTER

DRAWN BY	GLB	DATE	4/14/00
SCALE	NONE	YEAR	2000
FILE NAME	P11-1323		
DWG. NO.	TYPICAL 12		



**Florida Gas
Transmission
Company**

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Maitland, Florida

FGT PHASE V EXPANSION

SILT FENCE INSTALLATION
EROSION CONTROL DEVICE

DRAWN BY
GLB

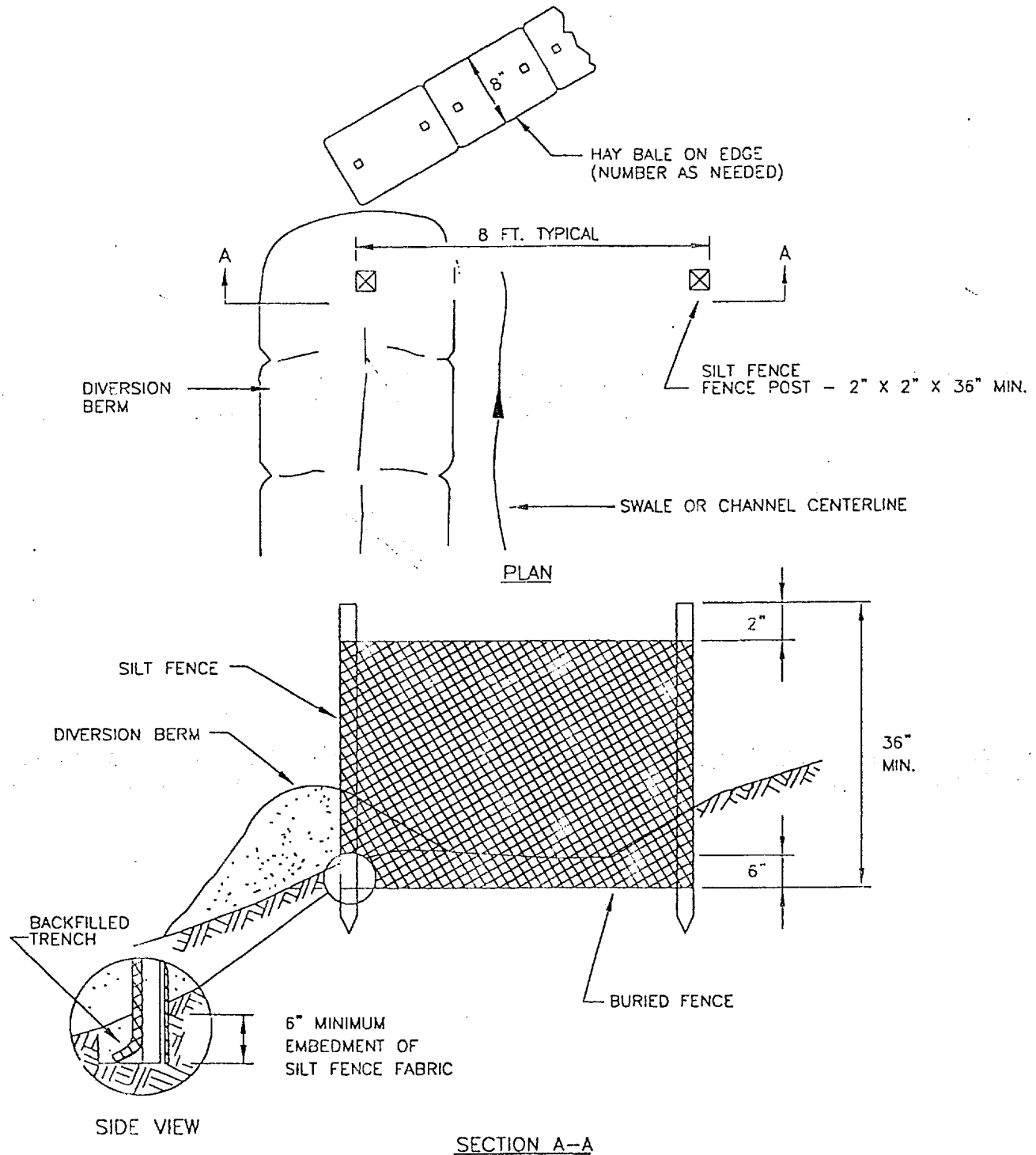
DATE
4/14/00

SCALE
NONE

YEAR
2000

FILE NAME
P11-1307

DWG. NO.
TYPICAL 13



NOTES:

1. SILT FENCE AND/OR ROCK APRON INSTALLATION DETAILS TO DIFFUSE WATER RUNOFF FROM DIP OUTLETS FOR AREAS WITH SPARSE VEGETATION.
2. HAY BALES ARE TO BE INSTALLED APPROXIMATELY 120' TO DIRECTION OF FLOW.

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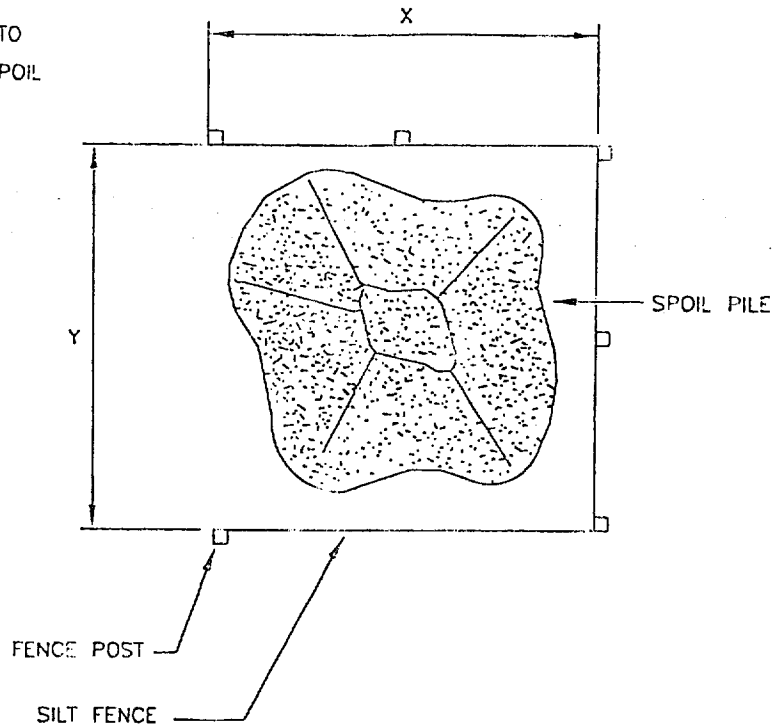
Maitland, Florida

FGT PHASE V EXPANSION

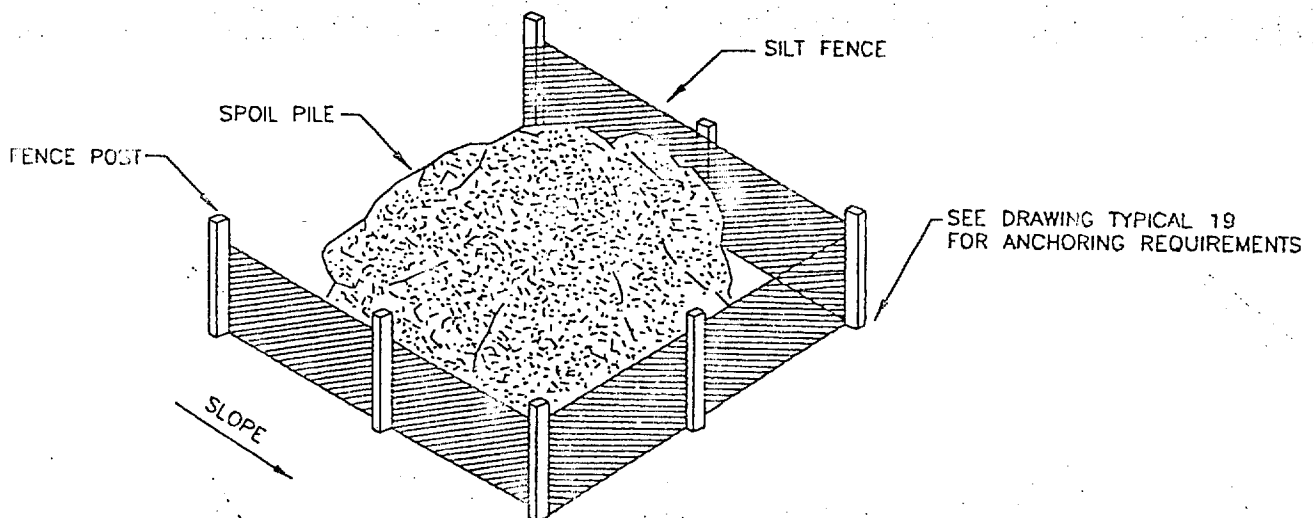
SILT FENCE AND/OR
HAY BALE OUTLET
INSTALLATION

DRAWN BY GLB	DATE 4/14/00
SCALE NONE	YEAR 2000
FILE NAME	P11-1315
DWG. NO.	TYPICAL 14

X & Y VARY TO
ACCOMMODATE
VOLUME OF SPOIL



PLAN



NOTE:

1. PLACEMENT OF SILT FENCE WILL VARY TO ACCOMMODATE TOPOGRAPHY & SITE CONDITIONS.

**Florida Gas
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Company**

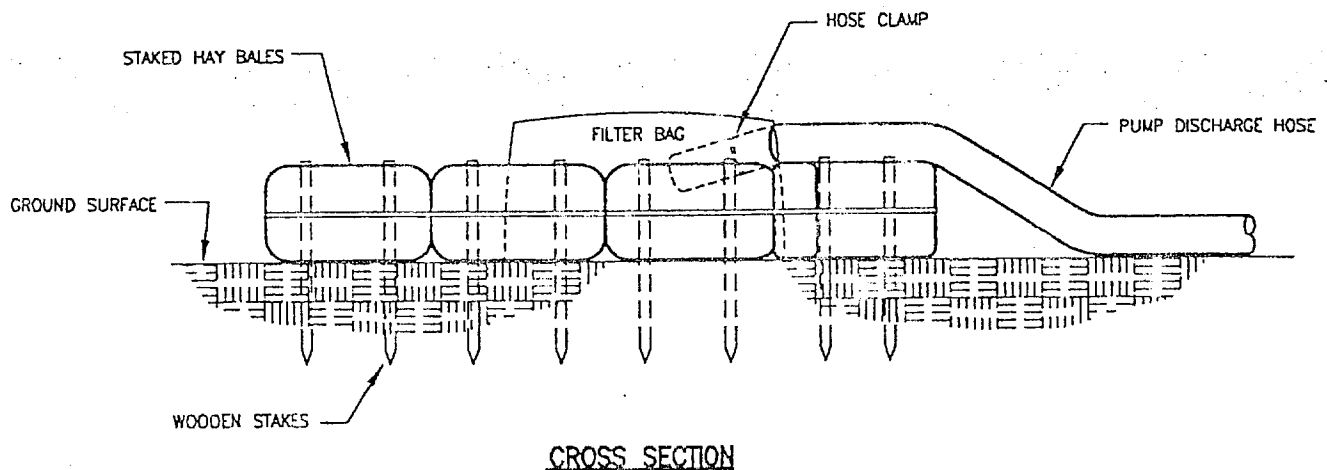
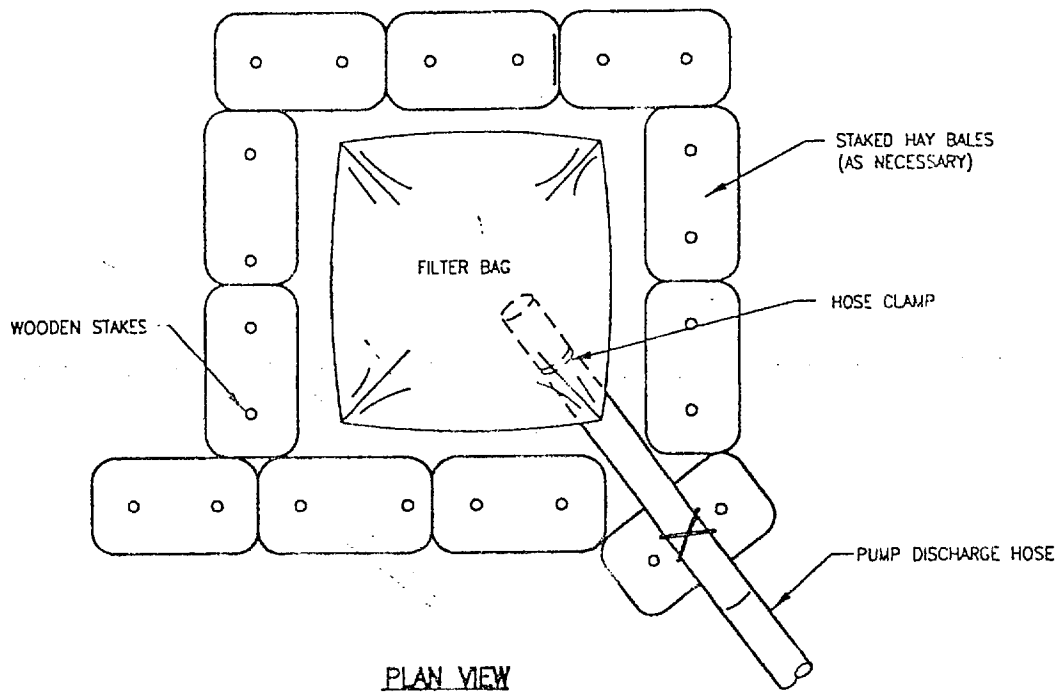
An Enron/E. Paso Affiliate

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FGT PHASE V EXPANSION

SILT SCREEN DETAILS
FOR SPOIL PILES

DRAWN BY GLB	DATE 4/14/00
SCALE NONE	YEAR 2000
FILE NAME P11-1314	
DWG. NO. TYPICAL 15	



NOTES:

1. DEWATERING SHALL BE PERFORMED IN ACCORDANCE WITH FGT'S WETLAND AND WATERBODY CONSTRUCTION AND MITIGATION PROCEDURES (APPENDIX C), AND UPLAND EROSION CONTROL, REVEGETATION AND MAINTENANCE PLAN (APPENDIX D).
2. DEWATERING SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL PERMITS.
3. LIMIT ONE DISCHARGE HOSE PER BAG.

**Florida Gas
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Maitland, Florida

FGT PHASE V EXPANSION

FILTER BAG DEWATERING
(METHOD 1)

DRAWN BY
GLB

DATE
4/14/00

SCALE
NONE

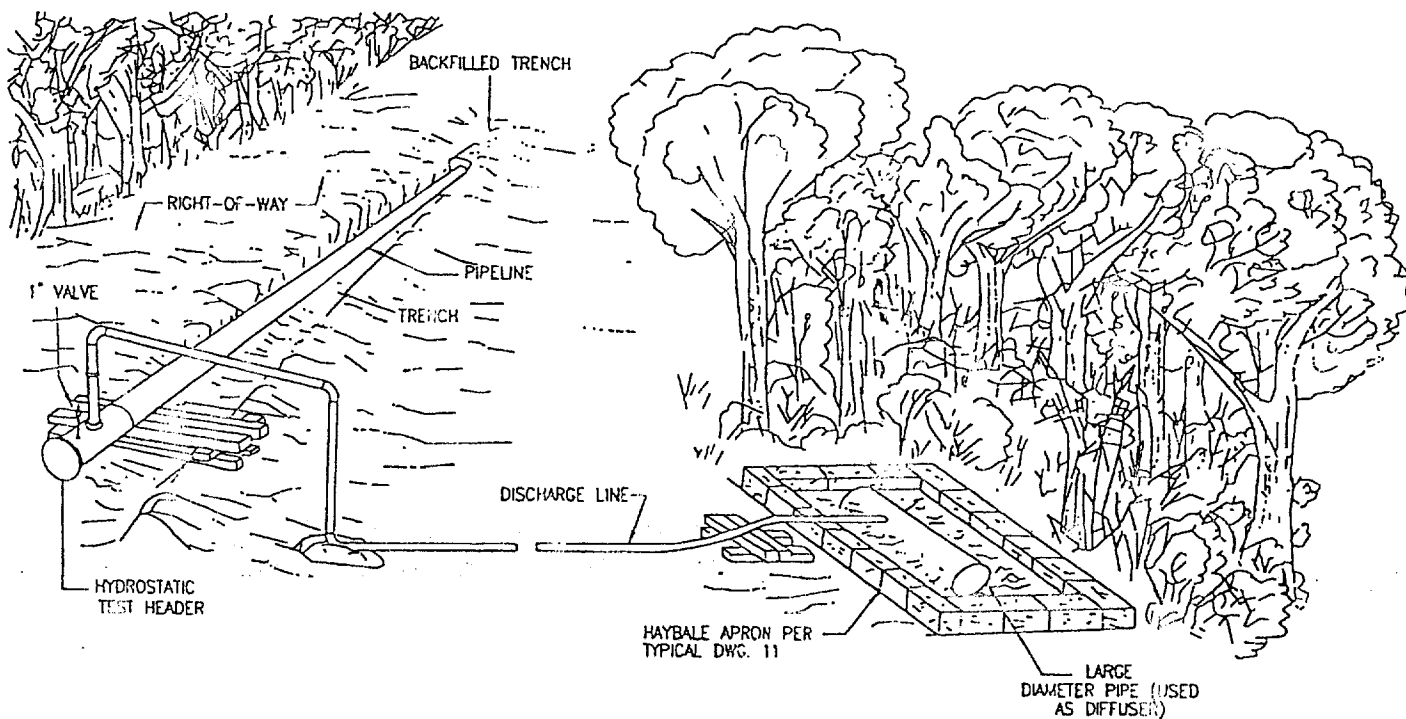
YEAR
2000

FILE NAME

P11-1322

DWG. NO.

TYPICAL 16



NOTES:

1. DEWATERING SHALL BE PERFORMED IN ACCORDANCE WITH FGT'S WETLAND AND WATERBODY CONSTRUCTION AND MITIGATION PROCEDURES (APPENDIX C), AND UPLAND EROSION CONTROL, REVEGETATION AND MAINTENANCE PLAN (APPENDIX D).
2. DEWATERING SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL PERMITS.
3. LIMIT ONE DISCHARGE HOSE PER BAG.

**Florida Gas
Transmission
Company**

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Maitland, Florida

FGT PHASE V EXPANSION

UPLAND TRENCH OR HYDROSTATIC
TEST DEWATERING
(METHOD 1)

DRAWN BY
GLB

DATE
4/14/00

SCALE
NONE

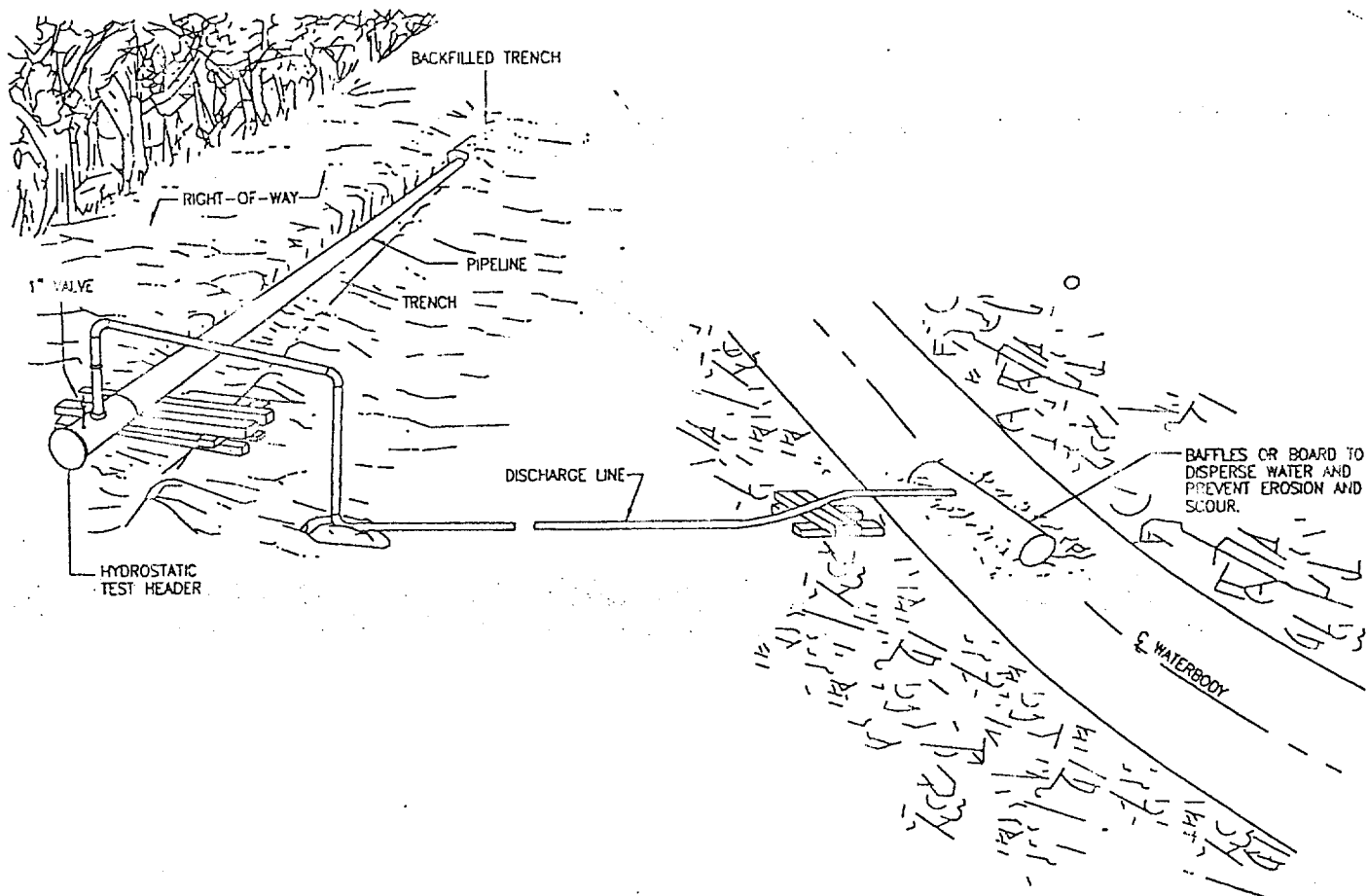
YEAR
2000

FILE NAME

P11-1003

DWG. NO.

TYPICAL 17



NOTES:

1. DEWATERING SHALL BE PERFORMED IN ACCORDANCE WITH FGT'S WETLAND AND WATERBODY CONSTRUCTION AND MITIGATION PROCEDURES (APPENDIX C), AND UPLAND EROSION CONTROL, REVEGETATION AND MAINTENANCE PLAN (APPENDIX D).
2. DEWATERING SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL PERMITS.
3. LIMIT ONE DISCHARGE HOSE PER BAG.
4. PRESSURE IS RELEASED INITIALLY THROUGH 1" VALVE.

**Florida Gas
Transmission
Company**

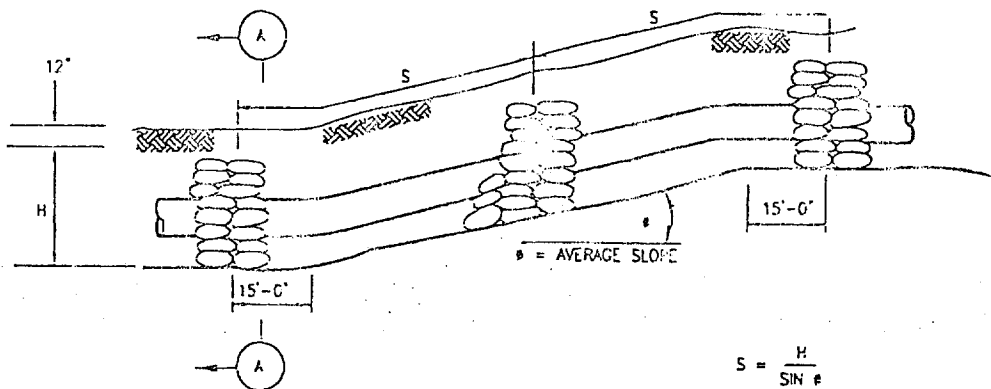
An Enbridge Energy Services Company

Maitland, Florida

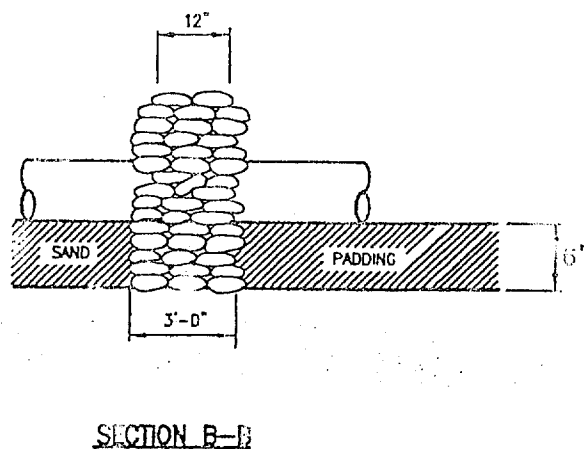
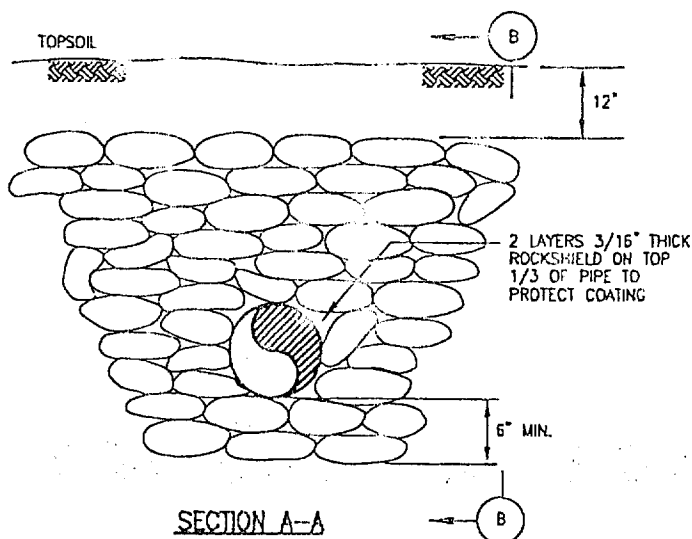
FGT PHASE V EXPANSION

WATERBODY HYDROSTATIC
TEST DEWATERING
(METHOD 2)

DRAWN BY GLB	DATE 4/14/00
SCALE NONE	YEAR 2000
FILE NAME	P11-1003A
DWG. NO.	TYPICAL 18



EXAMPLE: 20 SLOPE WOULD
REQUIRE SPACING OF 16' IF
HEIGHT OF BREAKER IS 6'.



NOTES:

1. BREAKERS SHALL BE INSTALLED AT SHARP CHANGES OF SLOPE WHERE THE NATURAL DRAINAGE PATTERN, PROFILE WILL CAUSE THE TRENCH TO ACT AS A DRAIN.
2. ADJUST SPACING OF BREAKERS SO TOP OF BREAKER IS APPROXIMATELY THE SAME ELEVATION AS BOTTOM OF UPHILL BREAKER, OR AS INDICATED IN TABLE SAME ELEVATION AS BOTTOM OF TO RIGHT (MORE STRINGENT SHALL APPLY).
3. COMPANY MAY SPECIFY POLYURETHANE FOAM BREAKERS OR OTHER MATERIALS AS REQUIRED SEE TYPICAL DWG. TYPICAL 20.
4. WHERE PIPELINE TRENCH MAY DRAIN A WETLAND, CONSTRUCT TRENCH BREAKER AND/OR SEAL TRENCH BOTTOM AS NECESSARY TO MAINTAIN ORIGINAL WETLAND HYDROLOGY.
5. FOR EACH WATERBODY CROSSED, INSTALL PERMANENT TRENCH BREAKER AT THE BASE OF SLOPES NEAR THE WATERBODY. LOCATE TRENCH BREAKER UPSLOPE OF THE SLOPE BREAKER.

SLOPE	SPACING
LESS THAN 5%	NO STRUCTURE
5 TO 10%	100 TO 150 FEET
11 TO 15%	80 TO 100 FEET
16 TO 20%	70 TO 80 FEET
21 TO 30%	50 TO 70 FEET
GREATER THAN 30%	25 TO 50 FEET

**Florida Gas
Transmission
Company**

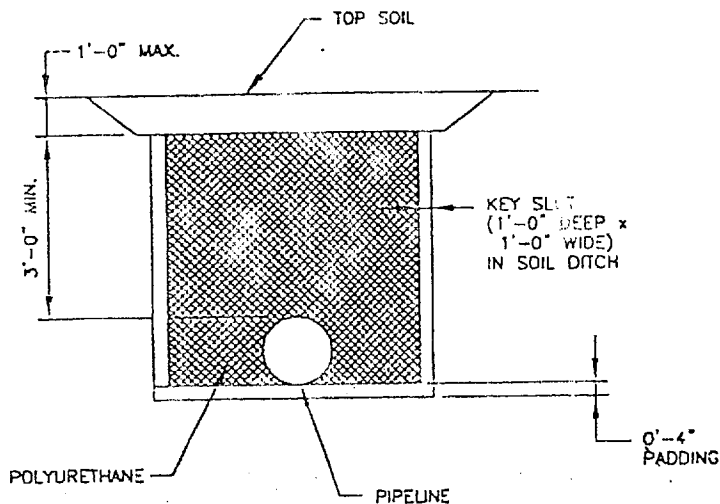
An Enron/EI Paso Affiliate

Maitland, Florida

FGT. PHASE V EXPANSION

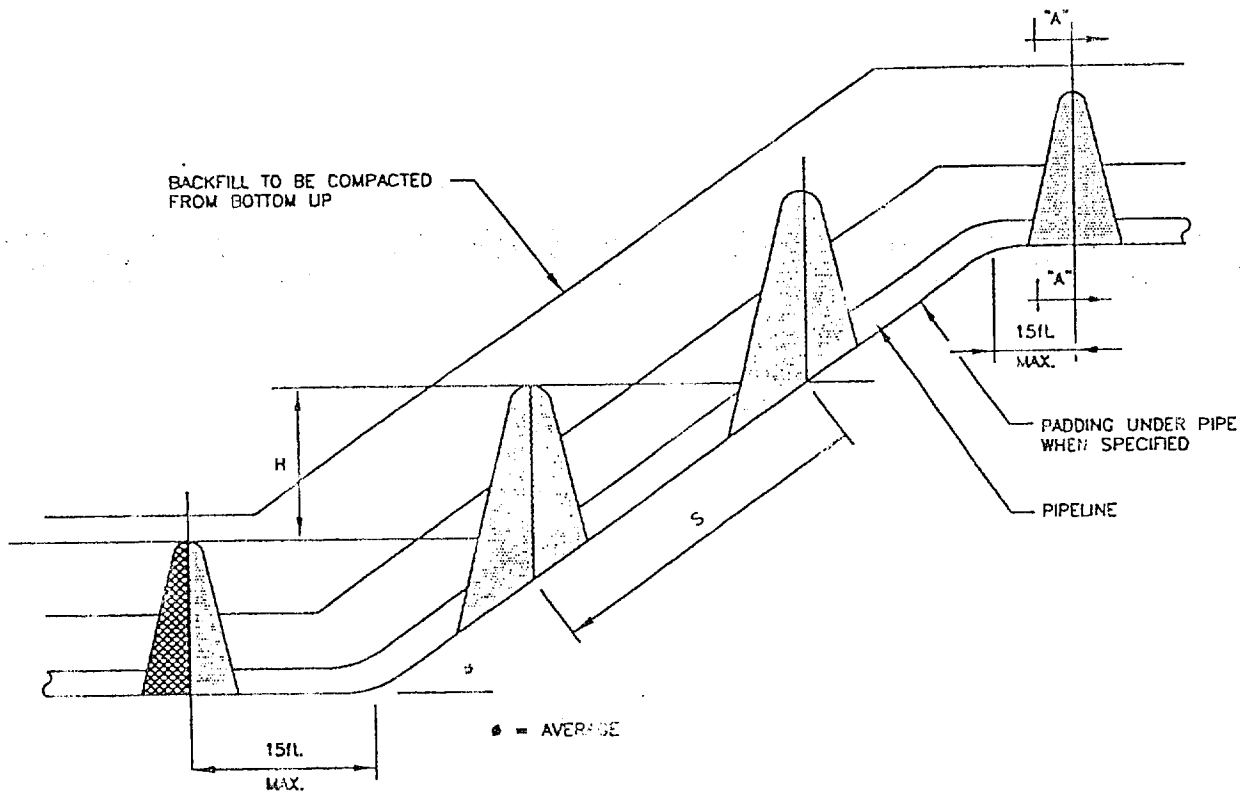
SACK (TRENCH) BREAKERS
REQUIREMENTS

DRAWN BY GLB	DATE 4/14/00
SCALE NONE	YEAR 2000
FILE NAME	P11-1317
DWG. NO.	TYPICAL 19



SECTION "A"-"A"

- NOTES:**
1. POLYURETHANE FOAM SHALL CONFORM TO ALL ENVIRONMENTAL REGULATIONS WITH RESPECT TO LONG TERM STABILITY CONCERNING CHEMICAL COMPOSITION.
 2. FOAM WITH 2 lbs./cu. ft. DENSITY AND 30 psi MINIMUM COMPRESSIVE STRENGTH OR EQUAL SHALL BE USED.
 3. IF FORMING REQUIRED, STYROFOAM BOARD CAN BE USED.
 4. IN VALLEYS, DRAINAGE AREAS OR AREAS WHERE WATER MAY FLOW ALONG TRENCH AND REMOVE PADDING OR BACKFILL FROM AROUND THE PIPE ADJUST SPACING OF BREAKERS SO TOP OF BREAKER IS AT APPROXIMATELY THE SAME ELEVATION AS BOTTOM OF UPHILL BREAKER.
 5. APPROXIMATE SPACING OF BREAKERS SHALL BE AS SHOWN ON TYPICAL DWG. TYPICAL 19 OR AS DIRECTED BY COMPANY INSPECTOR.
 6. ALL SAFETY REQUIREMENTS DURING INSTALLATION SHALL BE STRICTLY ENFORCED.
 7. WHERE PIPELINE TRENCH MAY DRAIN A WETLAND, CONSTRUCT TRENCH BREAKER AND/OR SEAL TRENCH BOTTOM AS NECESSARY TO MAINTAIN ORIGINAL WETLAND HYDROLOGY.
 8. FOR EACH WATERBODY CROSSED, INSTALL PERMANENT TRENCH BREAKER AT THE BASE OF SLOPES NEAR THE WATERBODY. LOCATE TRENCH BREAKER UPSLOPE OF THE SLOPE BREAKER.



APPROXIMATE BREAKER SPACING

$$S = \frac{H}{\sin \phi}$$

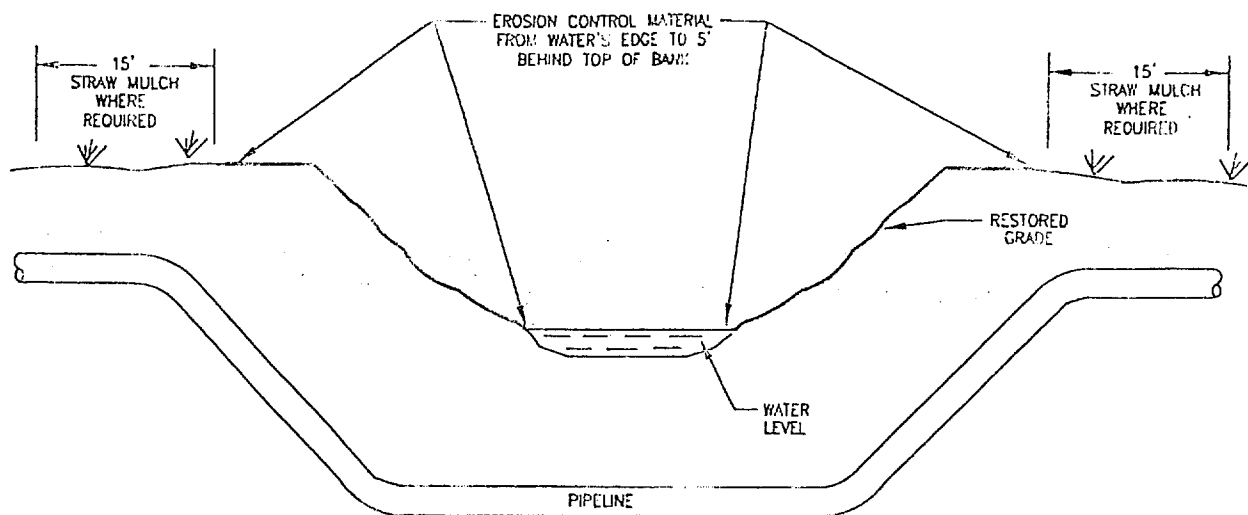
**Florida Gas
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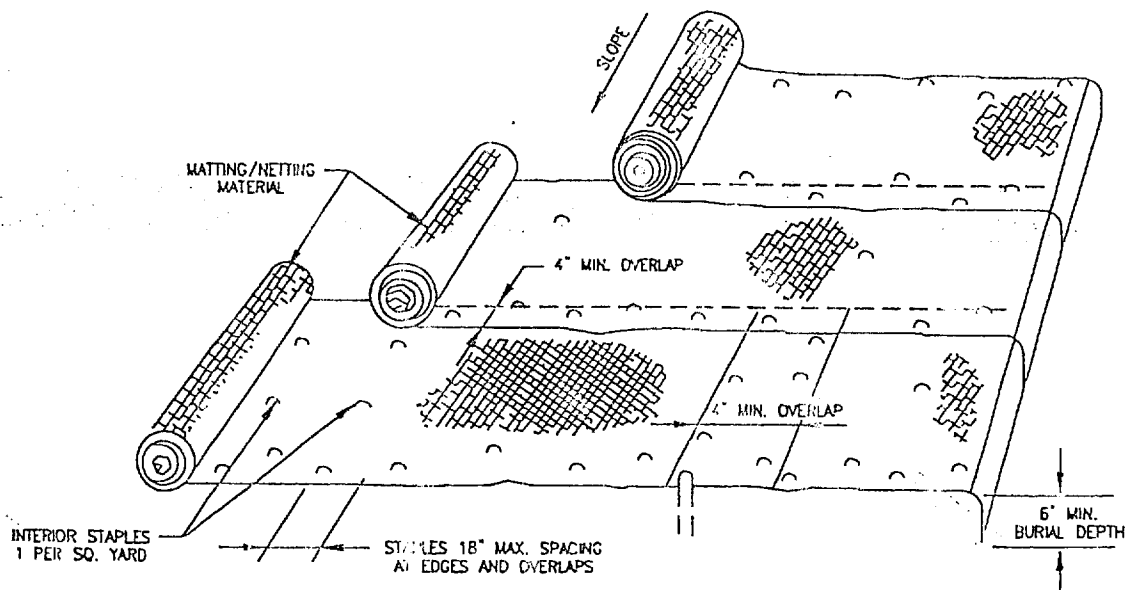
Maitland, Florida

FGT PHASE V EXPANSION
POLYURETHANE FOAM TRENCH
BREAKER PLACEMENT

DRAWN BY GLB	DATE 4/14/00
SCALE NONE	YEAR 2000
FILE NAME	P11-1318
DWG. NO.	TYPICAL 20



PROFILE
(NOT TO SCALE)



NOTES:

1. RIGHT-OF-WAY TO BE MULCHED AND SEEDED IF REQUESTED PRIOR TO THE INSTALLATION OF MATTING/NETTING.
2. MATTING/NETTING SHALL BE RUN HORIZONTAL AND PARALLEL TO THE GROUND CONTOUR.
3. STAPLES SHALL BE 10"-LONG, STANDARD MATTING/NETTING STAPLES.
4. STAKE EROSION CONTROL MATERIAL (CURLEX, JUTE, OR EQUAL) TO THE SLOPE PER MANUFACTURER'S RECOMMENDATIONS WITH WOOD PEGS OR STAPLES. INSTALL IN DRAINAGE SHOULDER AS NECESSARY TO HOLD SOIL IN PLACE UNTIL THE VEGETATION IS ESTABLISHED.
5. IN ABSENCE OF DETAILED REVEGETATION PLAN, SEED WITH ANNUAL RYE GRASS SEED AT A RATE OF 40 POUNDS/ACRE, PRIOR TO ROLLING OUT EROSION CONTROL MATERIAL.

**Florida Gas
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Company**

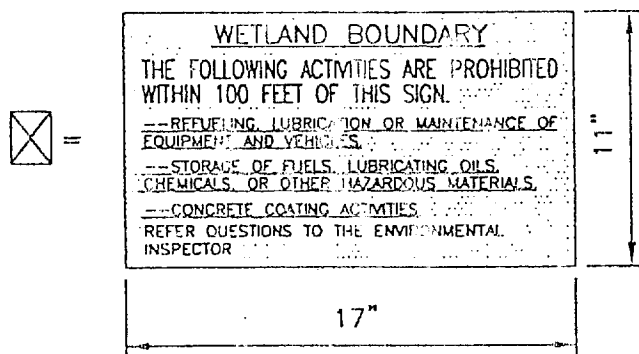
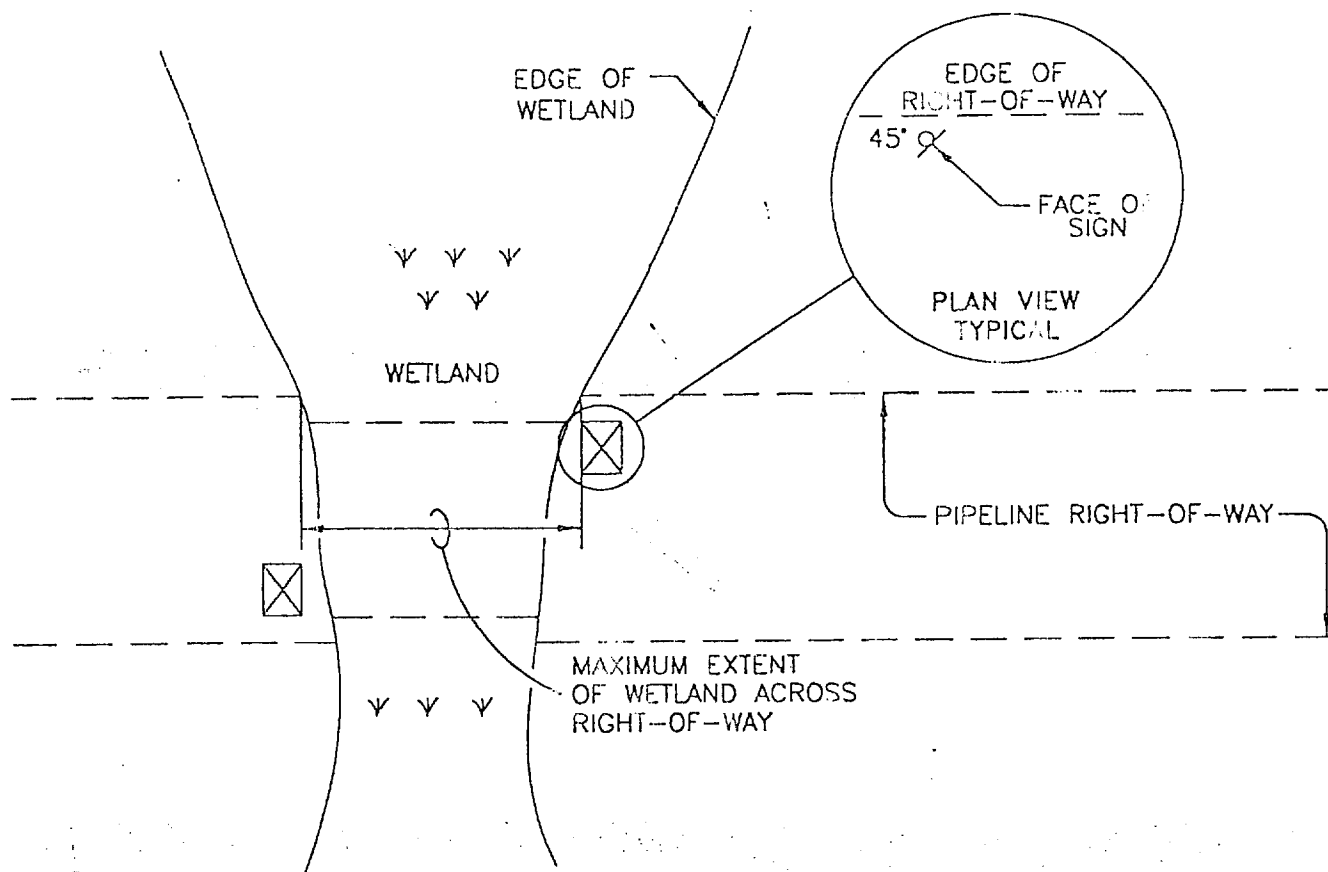
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Maitland, Florida

FGT PHASE V EXPANSION

TYPICAL MATTING/NETTING
INSTALLATION
FOR WATER CROSSINGS

DRAWN BY	GLB	DATE	4/14/00
SCALE	NONE	YEAR	2000
FILE NAME	P11-1309		
DWG. NO.	TYPICAL 21		



NOTE:

1. SIGN IS BLACK LETTERS ON YELLOW BACKGROUND.
2. SIGN TO BE PLACED ON WORKING SIDE OF ROW.

Florida Gas Transmission Company An Enron/EI Paso Affiliate Maitland, Florida	FGT PHASE V EXPANSION TYPICAL (TEMP.) SIGN FOR WETLAND BOUNDARIES	DRAWN BY	GLB	DATE	4/14/00
		SCALE	NONE	YEAR	2000
		FILE NAME	P11-405		
		DWG. NO.	TYPICAL 22		

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, MOBILE
P.O. BOX 2288
MOBILE, ALABAMA 36628-0001
OFFICIAL BUSINESS

FIRST-CLASS MAIL
U.S. POSTAGE
PAID
MOBILE, AL
PERMIT NO. 283

